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ABSTRACT

To ensure a high-quality education for every student, close partnerships among federal, state, and local education agencies must be established. This publication focuses on several issues related to this goal, including the need to: (1) reaffirm the Federal Government's historically defined role in supporting education; (2) set a national capitalization agenda to promote technology as an integral part of learning and teaching; (3) reauthorize the Higher Education and Rehabilitation Acts; (4) seek fundamental changes in labor law and regulations preventing educational program flexibility; (5) ensure that the federal tax code continues to encourage investment in education, job creation, and cultural activities; (6) build a strong national education research program, especially to address educational improvement; (7) obtain increased federal support for literacy improvement; and (8) urge a stronger federal role in promoting cultural understanding, language instruction, development education, area studies, and international educational exchange. An appendix presents a chronology of significant dates in the history of federal involvement in education. (MLH)

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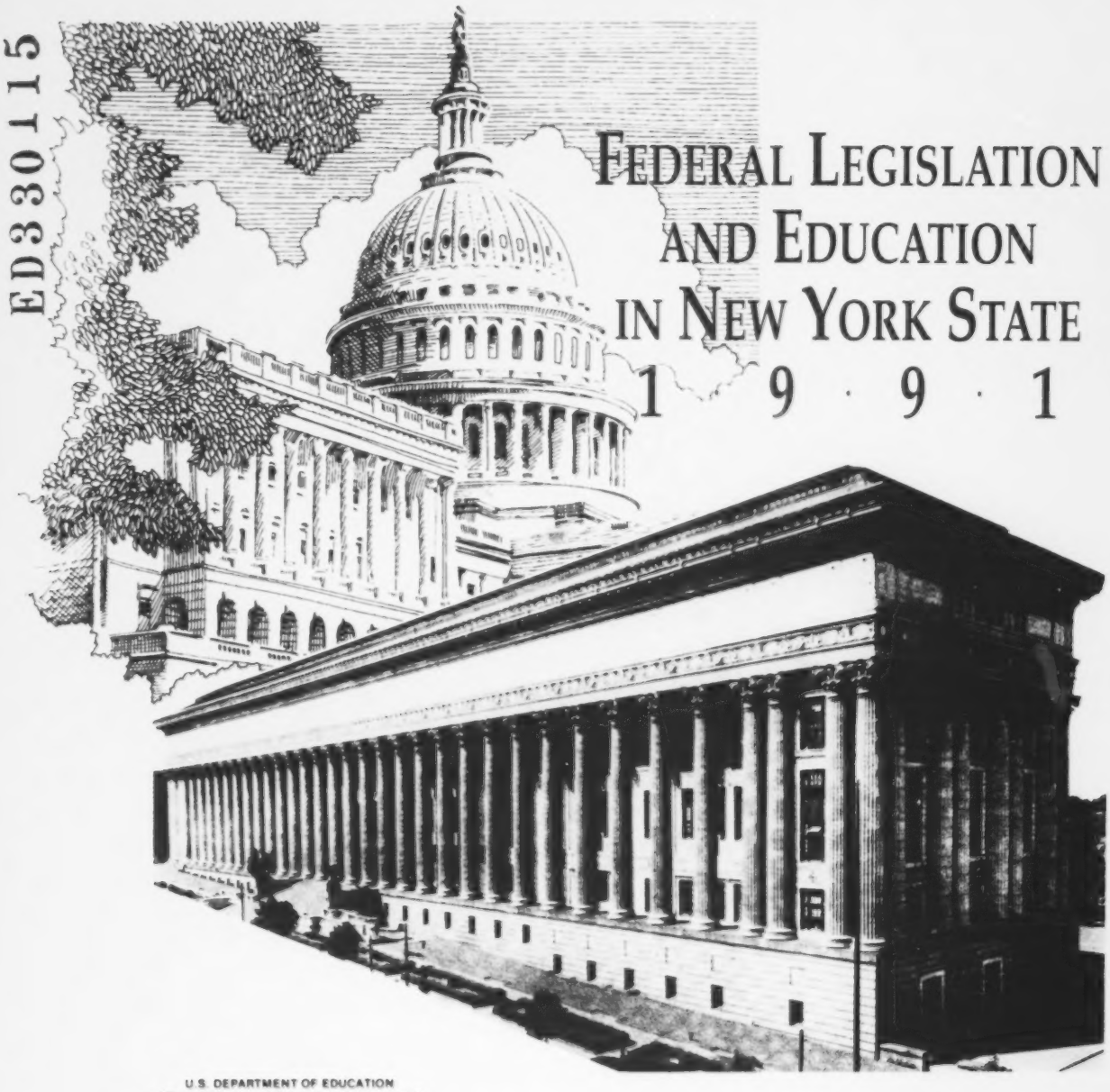

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FEDERAL LEGISLATION AND EDUCATION IN NEW YORK STATE

The University of the State of New York
THE STATE EDUCATION DEPARTMENT
Albany, New York 12234
February 1991

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FOREWORD

We have yet to begin nationally to fulfill the promise of the Education Summit of 1990. The intolerable, unequal division of education remains, with one system for disadvantaged, largely minority students and one for everyone else. Yet, every day the changing world requires knowledge and skills that we are not helping all our students acquire.

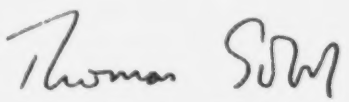
The Federal government must lead us out of this cruel dilemma by fully supporting national programs that promote educational opportunities and desirable educational outcomes for every student. Achieving these goals will require a close partnership among Federal, state, and local education agencies.

In the spirit of that partnership, we annually present to the members of Congress and the Federal Administration our analysis of key education issues and proposals for related legislation.

This 1991 edition of *Federal Legislation and Education in New York State* focuses on several issues related to assuring an equitable, high-quality education for everyone:

- Setting a national capitalization agenda to promote technology in its many forms as an integral part of teaching and learning, not simply as a supplement to primary operations.
- Reauthorizing the Higher Education and Rehabilitation Acts.
- Seeking fundamental changes in labor laws and regulations that prevent educational programming from being flexible enough to meet varying student needs.
- Ensuring that the Federal tax code continues to encourage investment in education, job creation, and cultural activities.
- Building a strong national education research program, especially to address educational improvement.

I join the members of the Board of Regents in urging our New York congressional delegation, other members of Congress, and the Administration to consider and act upon our recommendations.



Thomas Sobol

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EXECUTIVE SUMMARY

I. THE FEDERAL GOVERNMENT'S ROLE IN EDUCATION (pages 1-5)

As state education reforms continue, the scope of Federal support for education is clear. The Regents again assert that the Federal government has an historically defined role to play that should be maintained and coordinated with state and local activities and should address the following priorities:

- Promoting student and school success, beginning with school-based child care, through targeted assistance with administrative flexibility; sufficient aid to assure access and equity; and a sound infrastructure;
- Developing and maintaining a skilled work force;
- Helping to attract and retain qualified teachers and counselors;
- Strengthening the nation's research, development, and information capacity;
- Enlisting older Americans in educational and cultural programs and improving delivery of services to them;
- Enabling people with disabilities to have equal access to quality programs;
- Addressing the challenges of ethnic and cultural diversity; and
- Ensuring the free flow of information through revision of the Paperwork Reduction Act to serve as a focus for Federal information resources management.

II. EDUCATION CAPITALIZATION (pages 6-10)

Calls to restructure our educational system echo throughout the nation as dropout rates stay high and our need for a fully prepared work force is still unmet. The calls emanate from educators, government leaders, parents, and other major forces such as the Carnegie Corporation of New York, the National Business Council, and the Rand Corporation. A less publicized argument cites the undercapitalization of education compared with other enterprises as a key factor in our schools' crisis. By capitalization, we mean the application of technology in its many forms as an integral part of delivering a product or service — here education — not simply as a supplement to primary operations.

Two basic premises support this argument: We are using an inflexible 19th-century model for educating people and we invest inadequate funds in research and development that could dramatically change the way learning and relearning can occur.

In this paper, we briefly describe the problems inherent in the current system and propose that the Federal government take the lead in making education more capital intensive. It can do this by setting a national capitalization agenda through programs of research and development on capitalization issues and support of state and local acquisition of necessary equipment and software. Federal activities can and should spur lower level action.

III. REAUTHORIZATION OF THE HIGHER EDUCATION ACT (pages 11-24)

Anticipating reauthorization of the Higher Education Act (HEA), we support a continuing Federal role in postsecondary education with the HEA as its major vehicle, supplemented by Federal tax policy and research grants and contracts. In this broad framework, we make these recommendations:

- **Access.** We must promote access to worthwhile education programs for low- and moderate-income students by enhancing direct aid to students and increasing oversight of institutions. We can further this goal by a reasonable balance of grants, loans, work-study, and community service jobs; a simplified student aid delivery system; and improved accountability and institutional eligibility requirements.
- **Intervention.** We must foster high aspirations and outcomes for economically and educationally disadvantaged people through programs of early awareness, aid guarantees, and intervention and related support services. This initiative can be helped by full support for new National Liberty Partnership and Scholarship Programs and other programs incorporating successful models from public, private, and nonprofit sources.
- **Labor Supply.** We must increase the supply of well-prepared workers in areas of national need, focusing on people from underrepresented groups. We must expand programs for educator recruitment, retention, and development; international studies;

graduate education; encouragement of undergraduates to pursue education in special fields and at advanced levels; and in fields needing short-term, job-related or transitional training.

- **Infrastructure.** We must improve the capacity of postsecondary institutions to instruct and do research and development by supporting academic library and information technology development, institutional aid, and facility improvements.

IV. TRANSITION TO WORK: FULL ACCESS TO SERVICES FOR PEOPLE WITH DISABILITIES (pages 25-29)

Federal programs authorized by the Rehabilitation, Individuals with Disabilities Education, and Vocational Education Acts have a common thread relating to people with disabilities: the potential for integration of service delivery in employment training. This section describes New York State's continuing efforts to provide full access to all educational and vocational services and resources that have an impact on people with disabilities. We use the issues and problems facing New York to formulate recommendations for the scheduled reauthorization of the Rehabilitation Act in four main areas:

- **Integrated Employment.** Many people with disabilities could benefit from employment in integrated community work settings if the long-term support services necessary to sustain them in an integrated setting were available. We need to expand those programs so that persons are employed closer to their full potential than at present.
- **Interagency Coordination.** The coordination of services among agencies is critical to improving access to vocational training and employment opportunities for individuals with disabilities. The plethora of requirements of Federal and state laws that affect such people must be closely coordinated to eliminate duplication and inconsistency. The goal of agency coordination is to integrate Federal, state, and private services and promote the full and independent participation of all people with disabilities in our society.
- **Improving Access to Services.** All individuals should have opportunities to learn about and gain access to vocational rehabilitation services; but some systems, policies, and procedures of the vocational rehabilitation process have effectively limited access. Examples include Federal requirements for evaluation of rehabilitation potential. We must alleviate or remove these barriers.
- **Federal Funding Improvements.** The current Federal funding formula, based on squaring per capita income and population trends, does not account for the level of need of persons with disabilities. It penalizes states such as New York that have high average income or have small population growth, but may have more prospective consumers. As rehabilitation service needs change and expand, the formula must be revised to equitably meet demand, including full support for innovations such as supported employment and rehabilitation engineering.

V. WORKING STUDENTS AND LABOR LAWS (pages 30-32)

Acquainting students with the world of work and preparing them to make the transition from school to the workplace is a critical task for secondary schools, particularly in helping students who are at risk or disabled. We must ensure the quality of the work experiences provided to youth who need them. Even before that, however, we must seek fundamental changes in laws and regulations that preclude flexible programming. We now are limited by:

- Regulations governing work experience and career exploration programs for 14- and 15-year-olds. These inhibit or preclude alternative activities with potential benefit for disabled or dysfunctional students. Certain aspects of the United States Department of Labor (USDOL) Work Experience and Career Exploration Program (WECEP) and provisions for workers with disabilities are particular concerns.
- Lack of regulations on the number of hours and the times that 16- and 17-year-old students can work while school is in session. As a result, many young people are more involved with work than with school, and those who work many or late hours have academic difficulties.

In this section, we will briefly review these problems and make recommendations to help solve them. The ultimate goal in examining the circumstances of student workers should be development of a single, comprehensive set of laws and regulations that address the issues affecting their employment. In doing so, we must maximize flexible educational programming by permitting local educators to make decisions regarding work and students, including waivers for students to work for little or no pay if part of a bona fide educational activity.

VI. FEDERAL TAX INCENTIVES TO PROMOTE EDUCATION, JOB DEVELOPMENT, AND CULTURAL AWARENESS
(pages 33-37)

The current tax code contains several tax expenditures that benefit educational and cultural activities. The Regents support continuation of many current expenditures but believe additional incentives are needed to encourage more investment in those areas. In this section we recommend:

- Permanent extension of Section 127, which facilitates employee educational assistance for undergraduate and graduate study, and expansion to support blue-collar worker participation in high school equivalency and continuing education programs;
- Permanent extension of the research and experimentation tax credit, with an expanded definition of "qualified research" to include study in education, training, and related fields;
- Enactment of a Targeted Education and Training Equipment Tax Credit to provide more incentive for business and industry to invest in education and training technology;
- Permanent extension and refocusing of the Targeted Jobs Tax Credit to reach groups underrepresented in its coverage, especially people with disabilities;
- Monitoring by Congress of implementation of the new Education Savings Bond program to gauge its impact on taxpayers saving for postsecondary education. Due consideration must be given to the President's Family Savings Accounts and other proposals that have the same goal;
- Restoration of student deductions for student loan interest and income exclusions for the full value of scholarships and fellowships;
- Maintenance of the current Unrelated Business Income Tax exemption for nonprofit and charitable organizations; and
- Restoration of charitable contribution deductions for nonitemizers and donors of any gifts of appreciated property.

VII. LITERACY IMPROVEMENT
(pages 38-41)

For years the Regents have advocated more Federal support to improve the literacy levels of our citizens. We have sought to link literacy activities in the home, school, workplace, and in prisons to ensure a comprehensive approach. Another goal has been to maintain the parent's literacy level above the child's level through secondary school.

While we have seen some gains in developing and implementing related programs, we still have concerns about the unsolved literacy problems:

- Literacy legislation was not enacted by the 101st Congress. Some key provisions must be reintroduced and passed.
- Public and private sector leaders, as well as educators must acknowledge the skills decay problem in the workplace and address it comprehensively.
- A strong research program is needed to study literacy issues, including long-term retention of knowledge and skills, and to develop a comprehensive knowledge base.
- Community literacy and awareness programs must be helped by the Federal government, with programs coordinated among schools, libraries, and other public agencies. One approach is to coordinate Chapter 1 and adult education programs to provide a comprehensive "keep-up" approach to literacy training for Chapter 1 families.

VIII. EDUCATION RESEARCH AND DEVELOPMENT
(pages 42-47)

The United States Department of Education has never played a significant role in education research and development (R & D). One reason is that the Congress and Administration have not cooperated in setting priorities. The conflict is rooted in the model for education R & D within the Department of Education: Congress authorizes and funds the research structure (Office for Education Research and Improvement), but only indirectly suggests research objectives. The Administration's research objectives are often counter to those of the Congress. Funding levels reflect this dilemma.

The Regents propose a strong national research program by: 1. adapting to education the major projects approach used in other Federal agencies; 2. developing an alternative research structure; 3. targeting the new structure and its resources to critical needs with a national scope and centralized direction; 4. creating a Federal Research and Technical Assistance Letter of Credit for states to purchase research services or technical assistance at federally funded laboratories or centers; and 5. coordinating these efforts with a national education cooperative extension service.

IX. INFORMATIONAL AND CULTURAL SERVICES: Archives, Public Broadcasting, Museums, and Libraries
(pages 48-54)

A major strategy for building societal cohesion and

civic responsibility has been public funding for effective cultural institutions. In New York State these include museums, which express and interpret the history and culture of society; libraries and archives, which provide access to society's accumulated knowledge and to the workings of government; and public radio and television, which assure educational, public affairs, and cultural programming in the public interest.

In this section, we discuss the importance of these institutions and make recommendations to address several Federal issues, including:

- Development of a stronger program to identify, preserve, and make available archival records in electronic formats and continuing, formal coordination between Federal and state government archives and records programs;
- Support for telecommunications equipment purchases for public broadcasting to ensure a flow of high-quality programming, especially targeted to early childhood development and parent education and to help low-performing schools acquire classroom video equipment;
- Increasing demand and rising costs associated with the availability of museum services and concomitant increases in funding for the Institute of Museum Services.
- Consideration by the White House Conference on Library and Information Services of major problems in meeting the costs and logistics of new technologies and networking and the needs for facility construction and renovation as well as further materials preservation activities.

Other recommendations address the use of the nationwide network of libraries and the Federal government document depository system to disseminate information on critical national problems; theft and sale of antiquities and art; funding for public library construction to meet needs for modern library services and requirements of the Federal Disabilities Act; authorization of an Assistant Secretary of Education for Library and Information Services; affordable telecommunications rates; support for school library and media centers; support for the National Endowments for the Humanities and the Arts and the National Science Foundation; aid for video and television technology in education; and extension of the Treasury-Postal Service appropriations subsidy.

X. EDUCATION FOR INTERNATIONAL COMMUNICATION AND AMERICAN ECONOMIC COMPETITIVENESS
(pages 55-59)

Current social and economic trends point to greater interdependence of nations. We must educate our citizens to understand and communicate with other people and their cultures. We need a stronger Federal role in promoting cultural understanding, language instruction, development education, area studies, and international exchange at all education levels.

In this section, we review New York State's international education activities and propose an Education for International Communications and American Economic Competitiveness Act that would encourage development of our international competence and strengthening of economic competitiveness by expanding language instruction, student exchanges, and related activities. We also recommend that foreign language and culture instruction be made an integral part of military training programs.

I. THE FEDERAL GOVERNMENT'S ROLE IN EDUCATION

The New York State Board of Regents continues to believe that the Federal government has an historically defined role to play in education that should be maintained and coordinated with state and local activities. This Federal brochure outlines the Regents positions and proposals that we believe should help guide that role in the first session of the 102nd Congress.

Public Policy Objectives

The Federal government traditionally has served special educational needs through categorical aid and incentives for state and local funding of programs (see Appendix for a chronology of major actions). The Regents consistently have stated that education is a Federal concern, a state responsibility, a local operational function, and a parental duty. However, what is the proper definition of "Federal concern?" From a policy perspective, what is the overriding justification for a Federal education role?

From colonial times to the 1960s, the main Federal concern was to ensure an increasingly larger educated population, especially in fields having national impact such as the military, agriculture, and vocational education. This concern, however, was not inclusive, as Native Americans and Americans of African descent have been selectively excluded from full participation even to this day. The historical relationship between excluded populations and their disproportionate representation in current categories of disadvantage must be addressed at all government levels.

When viewed retrospectively, attempts to redress this inequity have often been late or misplaced. For example, the First Morrill Act in 1862 provided for establishment of land-grant colleges in states and territories. The 1890 Second Morrill Act sought to provide for a fuller endowment of such colleges. It also states that "the establishment and maintenance of such colleges separately for white and colored students shall be held to be in compliance with the provisions of this act if the funds received in such State or Territory be equitably divided." Thus, in seeking to address the equitable Federal funding of "colored" colleges, the legacy for separate and equitably funded, but not necessarily equal, institutions was committed to law, *a law that remains on the books today*. So, despite the avowed Federal commitment to equity and access, vestiges of institutional racism remain and represent existing real discrimination that must be expunged.

A broader social consciousness in the 1960s led the Federal government to supplement state and local efforts to provide educational opportunities. While we have noted that discrimination and racism have certainly not been eliminated, there was a Federal effort to subscribe to the complementary themes of "equity" and "access" in justifying supplementary assistance. This effort is being threatened by actions such as that taken by the administration to circumscribe the ability of higher education institutions to award scholarships to minority students. We believe that the growing trend to reverse civil rights and affirmative action laws and regulations must cease so we can ensure that all citizens have a quality education.

Educational "equity" is achieved when people's educational outcomes are not limited by conditions such as physical or mental handicaps, race, or economics. In promoting equity, the Federal government has established categorical programs to help meet the special needs of the economically and educationally disadvantaged, the disabled, and non-English speakers. Federal funds are seen as supplemental and may not supplant state and local monies.

"Equity" relates to the concept of "access" because the intent of much Federal aid is to improve "access" for people whose special needs have diminished their "equitable" educational opportunities. Examples include the Elementary and Secondary Education, Individuals with Disabilities Education, and Adult Education Acts.

Free public higher education is not generally a state constitutional right. Providing "access" in this context means ensuring that a student has an opportunity to pursue higher education. The Federal government seeks to lessen the economic inequities that exist for low- and middle-income students who desire to attend colleges but cannot afford the high tuition and attendance costs. Pell Grants, Supplemental Opportunity Grants, College Work-Study, and low-interest student loans have been designed to meet this objective.

The Federal government's involvement in education also has been justified as a response to burdens placed on education agencies and institutions because of direct Federal policy or action. For example, the installation of a Federal military base or a public housing project can reduce a school district's tax base while increasing the number of children to be served. The Impact Aid program has helped school districts address this problem. The influx of Indochinese, Cuban, Haitian, and Central and South American refugees in some states is another

example of a Federal policy that has required temporary Federal assistance.

The Federal government also has played a role in education research and data collection. It generates, collects, and disseminates information and provides incentives for other organizations and agencies to undertake similar tasks. To carry out these functions, Congress created the National Center for Education Statistics and the National Institute of Education and its successor, the Office of Educational Research and Improvement. The rationale for such activities is that the Federal agency can more effectively marshal resources for efforts of national scope.

Despite the virtues of these policy objectives, many administrators contend that Federal education programs contain requirements and regulations that legally exceed the proper Federal role and intrude upon state and local authority. Moreover, the federally imposed administrative burdens and legal mandates are not balanced by commensurate Federal aid to help localities meet them.

While criticism could be warranted, the Congress may not have intended to overburden, but simply was overzealous in seeking equity and access. A review of the legal context of the Federal role in education illustrates the difficulties faced by the Congress in balancing policy objectives with constitutional and other legal constraints.

The Regents and the Federal Role

Given the evolving history of Federal involvement in education, the Regents believe the Federal government continues to be an important partner in the nation's efforts to assure educational access, equity, and quality for all students. The Regents believe the Federal role is embodied in the following priority policy areas.

Providing Opportunities for Students and Schools to Succeed. The Regents are committed to an educational system in which all children have an equal opportunity to succeed. Under the nation's present economic and social conditions, however, far too many children are denied this opportunity. Across the country, in both urban and rural areas, distressed communities and families are faced with failing schools, unemployment, poverty, malnutrition, and dependence on public assistance. One of the primary outcomes of these multiple social problems is low educational achievement by our children, which then contributes to an intergenerational cycle of the above mentioned social ills.

We must implement a policy of ensuring that parents' literacy levels always equal or exceed that of their children through secondary school if we are to break the intergenerational cycle of failure and poverty.

So, assistance must extend beyond K-12 to include new ways of teaching, learning, and restructuring failing schools; the opening of a route to postsecondary education for all who wish to take advantage; and, the development and maintenance of cultural institutions. These topics are discussed in Sections II (Education Capitalization), III (Reauthorization of the Higher Education Act), and IX (Informational and Cultural Services: Archives, Libraries, Museums, and Public Broadcasting).

We applaud enactment of national service and child care legislation by the 101st Congress. Alternatively, the elimination of school-based child care programs from final action is a measure that should be reversed in the next Congress. It is imperative that we closely tie the education system with child care to ensure a continuum of attention for those youth needing larger-scale and longer-term support.

Targeted Assistance with Flexibility. Last year, we welcomed implementation of changes in the Chapter 1 program that targeted aid more broadly at schools containing large concentrations of disadvantaged children, rather than on the individual child. Funds also were directed specifically at the poorest districts. The rationale was that if the school as a whole is treated as the point of intervention, all disadvantaged children will benefit. In addition, this greater flexibility allowed localities to more efficiently manage scarce Federal resources.

The push for more flexibility was reinforced by the education summit between President Bush and the nation's governors. While all summit participants agreed on the need for national goals and objectives to attain educational success, consensus was also reached on the need for more flexibility in existing education statutes. State and local educators agree that the Federal contribution is critical to their efforts, but detailed mandates from the U.S. Department of Education are often burdensome and counterproductive. The Regents concur in this sentiment.

Addressing the Educational Infrastructure. Over 61 percent of today's schools were built during the 1950s and 1960s, and over 20 percent were built more than 50 years ago. One out of four of the nation's school buildings is in poor condition, with 43 percent obsolete and 13 percent structurally unsound. According to a 1989 report by the Education Writers Association, $84 billion is needed to build and modernize schools nationwide, and $41 billion is required solely for maintenance and repairs.

In our urban areas, the problem is even more acute. For example, the average age of school buildings in New York City is over 50 years, with 850 schools needing repair or renovation. Of these, more than 300 require complete modernization and nearly 500 need new heat-

ing or electrical systems. Moreover, 40 percent of the City's schools are currently defined as severely overcrowded, and a 20 percent enrollment increase is projected by 1998.

The Federal government must help maintain the infrastructure of our nation's schools, universities, and libraries, just as it supports critical capital improvements in the nation's highways, bridges, and dams. The condition of school facilities is unquestionably tied to the educational success of students. We consequently propose that an aid program for renewing our educational infrastructure be established by the Congress.

Assuring Access and Equity through Financial Assistance. The Federal government currently provides supplementary aid to expand opportunities for students and schools to succeed. However, Congress and the current administration has just begun to reverse the reduction in education funding that occurred over the last 10 years. More must be done to restore education to the priority funding status it once enjoyed.

One proposal aimed at expanding Federal education spending was outlined in 1988 by the Secretary of the Washington State Department of Social and Health Services. A Children's Trust would be funded through employer and employee payroll contributions, analogous to the Social Security trust fund. With tax contributions at three-tenths (0.3) percent, revenues by the fifth year would approximate $20 billion. The money would be used in conjunction with current education appropriations, providing a 70 percent funding increase for children's programs.

Developing and Maintaining a Skilled Work Force. Education supplies the human resource needs of the economy, giving people the opportunity to achieve economic self-sufficiency and personal fulfillment. For this reason, access to the education system must be increased for all, including individuals with disabilities. The transition from education to employment is a critical one. It requires special consideration by secondary schools and postsecondary institutions, particularly in serving at-risk populations and preparing students for an internationally competitive job market.

If the education system is to meet the challenges involved in developing and maintaining a skilled work force, it must:

- address both current and future employment needs;
- develop a responsive curriculum;
- promote the efficient and widespread use of instructional technology through a major investment of targeted resources;
- develop and maintain adequate physical facilities;
- coordinate between programs and providers;
- respond to the needs of older adults;
- improve counseling, career information, and access to vocational services; and
- establish on-site child care.

Many of these issues were addressed during reauthorization of the Carl D. Perkins Vocational and Applied Technology Education Act. However, we must do much more to improve the overall literacy of our workers. We especially believe that the Congress should act quickly in the next session to approve some of the literacy measures that were stalled last year. Section VII (Literacy Improvement) addresses the literacy and work force preparation problems that face our nation and our education system.

Enhancing the Profession of Teaching. Perhaps the most important factor in the success of our educational system is the quality of the nation's teaching force. Although teacher recruitment, retention, retraining, and remuneration have traditionally been state and local responsibilities, the Federal government can play a meaningful role in boosting teaching as a profession and enhancing state and local efforts to attract qualified candidates into the field.

For many years the Federal government has authorized modest incentive programs to encourage college-age students to join the teaching profession. Support for those programs has waned in recent years, however, and funding has never been adequate to support their goals.

The need for a renewed Federal effort in this area is critical. The shortage of qualified teachers has reached severe proportions for certain fields in many areas of the country, including in science, mathematics, bilingual, and special education, and in securing sufficient numbers of minority teachers, particularly in urban areas.

Given the national importance of meeting these needs, the Federal government has a clear stake in addressing the problem. The Regents strongly support any efforts to assist the teaching profession. This topic is discussed in Section III on the Higher Education Act reauthorization.

Strengthening the Nation's Research and Information Capacity. We must develop our capacity for research and development as a basis for education reforms and their evaluation and to ensure access to necessary information about education. Although state and local governments, libraries, other public institutions, and the private sector may contribute in a piecemeal way to our information base, it is a Federal role to assure a coherent, centralized policy to meet our research and information needs.

In 1989, Congress approved legislation to upgrade and modernize the nation's university research facilities.

Although only a fraction of funding was provided compared with need, the measure is a good first step. As the Congress looks at changing operations of the Office of Educational Research and Improvement, they must broaden the scope of their analysis to consider the efficacy of supporting a comprehensive national research agenda and structure. Sections II (Education Capitalization) and VIII (Education Research and Development) of this document provide an in-depth examination of our education research, development, and information needs.

Enlisting the Energies of Older Americans. The overall aging of our population calls for marshaling resources on behalf of the elderly and providing ways for them to play vital roles in strengthening our education institutions and programs. The Federal government must develop policies and programs to improve the delivery of education and cultural services to the aging, and to enlist their experiences and expertise to enhance these areas.

Although many Federal programs help support a basic health and living standard for older Americans, there is no policy to coordinate a comprehensive delivery system that meets their wider needs. We believe the Federal government must do more and urge:

- a comprehensive national education policy on the aging to promote and coordinate services to them;
- a National Center for Educational and Cultural Opportunities for the Aging that would coordinate activities, advocate for the interests of older people in establishing and implementing Federal policies and programs, serve as a clearinghouse for information on aging issues, promote and strengthen intergenerational programs, and provide a critical mass of support for research and development;
- a national agenda to identify and tap older persons as a significant stock of underused human capital, to serve as volunteers and paid workers in civic, cultural, educational, and recreational programs;
- a national education program on biological, psychological, and sociological aspects of aging, including the incorporation of age-related material into elementary and secondary curricula; the encouragement of secondary students to provide community service in facilities for older Americans; and, the training of teachers to develop awareness of the functioning and well-being of aging persons; and
- training programs for providers of services to the elderly, to help them train the elderly to serve their peers and other persons in need and to ensure that the providers keep abreast of recent research on aging. Educational institutions must expand their course offerings in gerontology and geriatrics to ensure sufficient professionals and paraprofessionals trained in the care of aging persons.

Enabling People with Disabilities. The Regents believe that a fundamental education priority at all levels of government is to ensure that people with disabilities have equitable access to quality programs and career opportunities. This philosophy was first manifested in the 1918 Smith-Sears Act, which marked the start of vocational rehabilitation aid. It was followed many years later by the landmark 1975 Education for All Handicapped Children Act, which assured all children the right to a free, appropriate, public education. Since that time, the Federal government has expanded its policy towards people with disabilities, culminating with the 1990 Americans with Disabilities Act.

It is imperative for the Federal government to do all it can to help people with disabilities become contributing members of the work force and have optimal career opportunities, including providing the supplemental resources needed to allow state and local governments to comply with the Federal mandate. Our views on the anticipated reauthorization of the Rehabilitation Act are contained in Section IV (Transition to Work: Full Access to Services for Persons with Disabilities).

Responding to Ethnic and Cultural Diversity. Just as the United States must build on its linguistic and cultural diversity to prepare for the 21st century, the education community must improve its understanding of and respect for the ethnic and cultural diversity of the people it serves to ensure everyone the opportunity to succeed.

Through its policies and programs, the Federal government can help to assure that the nation's rich diversity is never a cause for exclusion or discrimination. Also, through foreign languages, international education, and international exchange programs, we can improve our economic competitiveness with other nations. Our proposals in this area are included in Section X (Education for International Communication and American Economic Competitiveness).

Ensuring the Free Flow of Information. Far from being just a "paperwork reduction" measure, the Federal Paperwork Reduction Act of 1980 forms the core of a Federal information policy. The Act covers the acquisition, administration, and dissemination of information by Federal agencies. Its requirements, or regulations issued or drafted (especially revisions of Federal Circular A-130) to interpret and implement them, have become increasingly controversial in recent years. Criticisms have suggested that the government has:

- unduly reduced the collection of information needed

for effective government operations or for use by other organizations and people;

- overdelegated government information responsibilities to the private sector without ensuring adequate public access; and
- emphasized short-range considerations at the expense of the future needs of governments and citizens.

We strongly believe that the Paperwork Reduction/Information Resources Management bills considered in the 101st Congress do not address several vital issues relating to Federal records and the impact of Federal information practices on state and local governments, including their archival records. We support the following changes recommended by the National Association of Government Archives and Records Administrators and endorsed by the Federal Information Policy Coalition of the Council of State Governments, National Governors Association, and National Council of State Legislatures:

- Records retention and disposition analysis and review must occur during the design or redesign of electronic information systems. Adequate systems documentation must be retained as long as the information in the system has value;
- Adequate notice, information, and opportunity for comment must be given when Federal information systems design or related decisions have a major impact on state and local governments;
- An ongoing Federal-state committee must be created to exchange views and experience on information policies;
- An ongoing information locator system must be created. It must include information about archival records as well as major current Federal information systems; and
- Information stewardship and documentation responsibilities must be established for Federal managers.

Beyond these direct effects, government archivists and records managers and other information managers are concerned that poor Federal policies will set the wrong example for other governmental levels as they address similarly complex policy, service, and technical issues. Because of the vital role of government information to democracy and productivity and the tremendous resources required to meet Federal information mandates, these issues are too important to be left only to Federal bureaucrats, obscured under the outmoded term, "paperwork reduction."

In summary, we urge revision of the Paperwork Reduction Act to serve as a fuller Federal Information Resources Management Law. To do so, it should incorporate the recommendations noted above to ensure recognition of the importance of Federal information policy to state and local governments; guarding against the loss of important information created or maintained in automated systems; and, providing better access to information about federally operated information systems.

II. EDUCATION CAPITALIZATION

Calls to restructure our education system echo throughout the nation as dropout rates increase and our needs for a fully prepared work force go unmet. The calls emanate from educators, government leaders, parents, and other major forces such as the Carnegie Corporation of New York, the National Business Council, and the Rand Corporation. A less publicized proposition cites the undercapitalization of education compared with other enterprises as a key variable in our schools' crisis. By capitalization, we specifically mean the application of technology in its many forms as an integral part of delivering a product or service, here education, not simply as a supplement to primary operations. Capitalization means investing in "machines" to not only help do the administrative work in schools but assist in the teaching and learning of students.

Two interrelated factors support this argument: We are using an inflexible 19th century model for educating people, and we invest a pitiable amount on research and development into technology that could radically change the way learning can occur, both for initial preparation and to renew knowledge and skills.

In this paper, we briefly describe the problems inherent in the current system and propose that the Federal government take the lead in making education more capital intensive. It can do this by setting a national capitalization agenda through a program of research and development on capitalization issues and support of state and local acquisition of necessary equipment and supplies. While our focus is on the projected Federal role in capitalizing education, most themes and recommendations could be applied in varying degrees to state and local programs. Federal activities then should spur lower level action.

The Capitalization Dilemma

During the Industrial Revolution, we saw cottage industries give way to large-scale, capital-intensive endeavors. We developed a new infrastructure to support new industries and facilities. The nature of work has changed. A person who created a total product or major parts of it now may deal with only a small part of a highly mechanized production process.

We are now in the so-called Information Revolution, which again is changing the nature of the way we live, work, acquire knowledge, and play. The development of the computer chip through industry-related research has brought on this new era. Computerization and the application of related technologies are generating fundamental changes in most organizations, including service industries such as banking, insurance, and library and information services.

While arguments can be made about the dehumanizing aspects of this evolution, the negative features primarily would be a function of application. Where workers have been able to use technological advances as tools rather than the changes making them servants to the machine, the charge of dehumanization is unfounded. In education, we would insist that the teacher be the manager of technology.

During the earlier period of technological revolution, education devoted much time to tinkering with improvements in organizational structure and dealing with other short-term problems brought on by the consolidated one-room school houses. It was not creating a new infrastructure to match advances made in other services, businesses, and industries. The fundamental classroom process did not change nor did the basic tools required of educators.

The new era of artificial intelligence, interactive media, expert systems, fiber optics, and artificial reality would seem to be tailor made for education applications. To harvest its fruits, we must be willing to consider changes in the learning infrastructure and process, based on an infusion of capital into education functions.

The 19th Century School Today

Among others, Dr. Larry Cuban of Stanford University has examined the traditional classroom in his books, *Teachers and Machines: The Classroom Use of Technology Since 1920* (New York: Teachers College Press, 1986) and *How Teachers Taught: Constancy and Change in American Classrooms 1890-1980* (New York: Longman, Inc., 1984). The basic classroom process he describes has endured since at least 1890 and features teacher lectures and questioning of students, with supplementary activities such as assigned readings and chalkboard exercises. The physical structure is designed to meet the traditional aim of education: compel students to attend school and receive information in an orderly, efficient manner. Hence, we have "self-contained classrooms, age-graded levels, standard class sizes, and uniform teaching loads."

Over the years, various innovations have imposed upon this regimen, including slate and chalk, books, films, television, and computers. The thrust of their introduction has been that students can gain more infor-

mation and knowledge through technology with the same or less teacher effort.

However, Cuban justly argues that most such innovations never have become the panacea promised by reformers. The latter generally have been administrators and, not coincidentally, those attempting to sell the product. Many of these reforms are still around, but as filler, supplementing traditional teacher activities as a palliative for the boredom of continuous lecture. They do not provide an alternative system for imparting knowledge to students.

The Technology Investment Problem

Lewis J. Perelman of the Hudson Institute has questioned the common premise that our educational problems can be solved with an infusion of cash. He contends that too much bureaucracy and outmoded processes waste much of what we now spend on education.

He asserts that we must examine education as a business or industry and analyze its comparative expenditure on labor and capital. For example, costs for labor in education comprise 93 percent of output while the relation of such costs to output is 54 percent in the average business and 46 percent in high technology concerns. The average research and development firm spends 100 to 1,000 times more for capital than education while those emphasizing high technology tasks dedicate thousands times more.

A U.S. Office of Technology study has analyzed education versus other major industries and found that it has the lowest level of capital investment, about $1,000 per employee. The average for the entire U.S. economy is about $50,000, with some high-tech industries investing upward of $300,000. Some more labor-intensive "service" businesses devote $7,000-$20,000 per employee.

Perelman also advances the interesting idea that "education is the only business where the consumer does the essential work." The productivity of the student or learner, not the staff, is ultimately what counts. If we consider the student as the "worker," the average investment for education drops to $100 per person.

Examples of Programs

Despite the intractable 19th century education model and the lack of capital investment, the picture is far from bleak. Below, we have noted a handful of many positive projects that point to a lowering of the barriers to change. Where capitalization advances are made, improvements in student performance often have followed and the use of technology multiplied beyond the initial commitment:

Orangeburg (SC) School District 5. District 5 has about 6,600 students, 80 percent low-income and minority. In pretechnology 1984, its dropout rate was 35 percent over the four-year high school program. In 1976, 14 percent of the district's fourth-graders scored above the national average on basic skills tests.

In the early 1980s, a committee of teachers and district officials drew up their first computer master plan. Students below standards in reading and mathematics had to take an extra period of computer-assisted and -managed instruction. Computers were to be installed in all regular classrooms, with one unit for every five students and the final goal of giving each student two to three hours of weekly work on them.

Since the capitalization project began, the dropout rate has decreased to less than 10 percent. In 1988, 59 percent of the students were above average on basic skills tests. In June 1989, the District received the Computerworld Smithsonian Award in the education category for innovative use of information technology. The district became the first nonuniversity affiliate of IBM's program for discount computer purchases. As a result, two-thirds of the teachers have their own computers. College-level computer science courses and courses on software also are available for employees.

Job Skills Education Program (JSEP). JSEP was developed for the Army at over a $10 million investment as a prototype, computer-assisted educational program to instruct soldiers in the academic competencies needed for their service work assignments. The program diagnoses and provides training for deficiencies in reading and computation tasks that are generic to the assignments given 80 percent of the Army's soldiers.

JSEP subsequently was revised for civilian use. Then, the New York State Education Department and the White Plains (NY) Board of Education sponsored a pilot test at Rochambeau School, the Continuing Education Center of the White Plains City School District. Most of the pilot participants were part of Adult Basic Education (ABE), General Education Diploma (GED), and English as a Second Language (ESL) programs.

They spent less than the equivalent of a full semester of traditional schooling in the JSEP program. With the elimination of the high and low scorers, 61 students remained for the pre- and post-test analysis and had an average score gain of 34 percent. The 41 ABE/GED participants also took the Test of Adult Basic Education before and after their JSEP experience, achieving a 1.26 grade level gain in reading, and 0.94 in mathematics.

Besides these positive data, an informal survey of the few dropouts found they had left the program to accept employment. Participant satisfaction surveys also were administered and showed a clear trend of students being

pleased with the program and their performance.

New York City Computer Pilot Program. The New York City Board of Education established a Division of Computer Information Services initially to investigate the applicability of computer-based instruction (CBI) in improving the basic skills of educationally disadvantaged elementary and secondary students. As of the 1987-88 school year, 26 elementary and secondary schools were using 13 CBI programs, evenly split between remediation and full curriculum applications. The target populations ranged from kindergarten students to adults.

Swan, Guerrero, and Mitrani (1989) reviewed the programs using various evaluation tools and found that both staff and students were pleased and that students made significant achievement gains, especially in lower grades.

Videodisc-based Elementary Science Curriculum. The Texas Textbook Committee recently recommended that their state adopt a videodisc-based curriculum as an option to the traditional textbook-based science program. The supported curriculum is the "Windows on Science" program developed by the Optical Data Corporation. Given the high profile of Texas in the textbook selection process, this move has national significance for the introduction of technology-based curricula.

The Potential

While these kinds of projects are a significant step in the right direction, they seem mundane compared with the potential inherent in technology like virtual or artificial reality. Perhaps more to the point in illustrating our proposed conversion is the "electronic classroom" of Chris Held, a fifth-grade teacher in Bellevue, Washington, described in the September 1990 issue of *Instructor*.

Mr. Held characterizes his role in the largely student-centered classroom as the "guide on the side" rather than the "sage on the stage." He espouses individual or small group learning and an interdisciplinary curriculum that teaches through large-scale projects incorporate learning in multiple fields. The class itself has no desks. Rather, there are six work stations that the students can move to for different learning experiences, including:

- Problem solving station, with mathematics, social studies, and problem solving software that allow students to create projects such as a mathematical detective story with charts and graphs;
- Tactile and visual skills station, with traditional art supplies (e.g., paint, clay) and electronic and tactile media (e.g., desk-top publishing software), which are used for projects like producing a class newsletter and binding self-published books; and
- Quiet space and research center station, with a bookcase and sofa, where students can use reference materials or just sit and think about projects.

We propose to use computer-based, video, and broadcasting technology, as Mr. Held has, to capitalize the learning process itself. As David Foster of the Southwest Educational Development Laboratory noted in a recent *R&D Preview* issue, there is potential for restructuring or reorienting how we teach, where we teach, and what we teach through:

- new courses in computer-aided design and manufacturing, robotics, and other areas in which technology is the curriculum;
- opportunities for students to have individualized, self-paced instruction in which the teacher assumes the role of consultant rather than being the direct purveyor of knowledge;
- expanded distance learning opportunities;
- streamlined administrative tasks, which can free educators to use their time for more fruitful professional education pursuits; and
- the use of technology such as hypertext, artificial intelligence, and artificial reality to offer students more realistic, real-time opportunities to hone thinking, reasoning, decision making, and other higher order skills.

The Teacher as the Key

Cuban portrays teachers as the key element in any change process. If they are on board, change can and seemingly will occur. Recent trends toward computerization in every area of life seem to be providing a natural evolution to this end for the capitalization of education. For example, Aust, Allen, and Bichelmeyer (1989) found that many teachers seem genuinely interested in the newer technologies. Also, the Thanks to Teachers program sponsored by the National Foundation for the Improvement of Education, Apple Computer Inc., Group W Television, and the National Alliance for Business did a phone survey of their 231 semi-finalists. This research found that 72 percent of the teachers felt the lack of technology in schools was a barrier to their ability to teach. Eight in ten reported that a personal computer would help them a great deal.

The recent Bank Street College of Education Center for Technology in Education study (1990) is another indicator of this enthusiasm. As we have exposed more educators to such applications either through academic

preparation or other means, there is a growing supply of technologically literate people. Thus, in contrast to previous advances that sought to change education overnight, we now may be seeing a natural evolution that we must facilitate. If given a nurturing environment, teachers could be spontaneous, internal reformers.

More importantly, the Bank Street study underscores the potential of technology, once fully integrated into the classroom by experienced teachers, for achieving many of the goals sought by current school reform efforts. These include raising expectations for students, making classrooms less teacher-centered, and individualizing instruction.

Conclusions

We can draw several conclusions from existing capitalization projects and associated research:

- Carefully planned and implemented technology-based activities result in improved performance and satisfaction in teachers, students, and administrators;
- Technology begets technology, as illustrated in Orangeburg, where the initial effort to improve low performing students led to teachers owning computers, price breaks on equipment purchases, and introduction of opportunities to pursue additional technology-oriented course work;
- Technology can be an administrator's idea but if teachers do not willingly participate in developing a program and students are not interested, the effort will fail. Technology can mean fewer classroom hours; less lecturing; fewer testing and scoring hours; more opportunities for creativity and innovation; computerized curriculum that could be updated more often, more rapidly; fewer tedious administrative tasks; more free time to go one-on-one with students to solve special problems, experiment, and investigate new ideas. The sense is that the teacher can become even more of a professional;
- It is important to bring business into the equation by spurring development of education-specific equipment and planning programs that will be relevant to their needs. The cost of developing hardware and software can be significant. There must be incentives for businesses to undertake the necessary research and development. Also, the U.S. Department of Education must perceive such research and development to be an integral part of their mandate; and
- Once the incentive and infrastructure for capitalization is present, programs seem to blossom and grow without much prompting. All we need is a nurturing leadership that is willing to provide an environment ripe for innovation.

The Federal Role in Capitalization

We must provide the tools by which a technology-receptive environment can be established in each educational institution. The Federal government can help mobilize efforts to this end.

Right now, no firm direction exists. There are few Federal resources devoted to capitalization activities. Some existing programs are only afterthoughts or by-products of other, larger programs. For example, both the Chapter 1 program for remediation of educationally disadvantaged students and the Individuals with Disabilities Education Act for youth with disabilities permit purchase of technology for use in associated programs. Chapter 1 recently has been extended to allow equipment purchased for its students to be used in off-hours by adult education classes.

Others have a main purpose that is more directly related to capitalization but these are modest in scope and funding. They include:

- Chapter 2 State Block Grants, which support general school improvement activities;
- Star Schools Program, which provides grants to support audio and visual facilities and equipment, instructional programming, and related technical assistance; and
- The Secretary's Fund for Innovation in Education, which funds programs and projects that result in identification and dissemination of innovative preschool, elementary, and secondary educational practices, including computer-based instruction.

Finally, some Federal programs are suited for completing capitalization projects but have yet to be given such a mandate. The system of education laboratories and centers, under the U.S. Department of Education Office for Educational Research and Improvement, is a prime example.

In summary, we believe the Federal government could and should be much more responsible for furthering the capitalization of education. We outline our recommendations for enhancement of their contribution in the next section. The profit could be substantial if we can extrapolate from the findings of a recent *Report on the Potential of Interactive Videodisc Technology for Defense Training and Education*. (J.D. Fletcher, 1989) According to it, interactive video in higher education effectively raises the expected performance of students in the 50th

percentile to the 76th, results in an increase of 45 percent in time on task, and generally is more cost effective and has more sustained effect than traditional instruction.

Recommendations

1. The U.S. Department of Education's Office for Technology Transfer, which now exists only on paper, should be fully funded and staffed. It should be raised to Assistant Secretary level and charged with oversight of Federal capitalization activities.

2. To provide seed money for states to undertake capitalization projects, the Federal government should either establish a National Technology Trust Fund or provide sufficient bonding authority to raise capital.

3. A minimum percentage of major Federal program allocations (e.g., Chapter 1 and Individuals with Disabilities Education Act state grants) should be used for capitalization projects.

4. An authorization and appropriation should be provided to promote district-wide planning and implementation of technology programs.

5. To investigate capitalization problems and create development potential, there should be a substantial increase in funding under the Office for Educational Research and Improvement targeted to related research and development including:

- a comprehensive evaluation component built into the capitalization agenda to determine how technology works best with target student populations. Implementation always must be accompanied by evaluation, which does not appear the case with much "off-the-shelf" software;
- a demonstration grants program to help state and local education agencies develop capitalization projects and disseminate particularly innovative results; and
- a mandate to Federal educational laboratories and centers that capitalization is to be one of their priority areas for research and development.

6. The U.S. Department of Education should be given the mandate to advocate for building competency in developing and using technology into teacher and school administrator preparation and continuing education programs. There also should be a demonstration program to support grants for collaborative projects between local education agencies (LEAs) and institutions of higher education. Prospective teachers and administrators would assume internships at LEAs that have planned or existing capitalization programs.

7. Businesses should be given tax incentives to create hardware/software for schools, participate in developing related curriculum, and develop of the "education work station" as the education "enterprise of the future." They must be motivated to develop software curricula and other technology that is tailored to specific state instructional needs rather than producing primarily for standardized applications across the country.

III. REAUTHORIZATION OF THE HIGHER EDUCATION ACT

The Higher Education Act (HEA) is due for reauthorization in 1991. This Act is the major Federal vehicle for supporting postsecondary education in the United States at public and private colleges and universities and at noncollegiate institutions offering noncredit vocational programs.

As measured by world standards, America's competitive system of collegiate education is unsurpassed. It serves a large and increasingly diverse population of students and meets a vast array of national needs for education, research, and service. Our system of noncollegiate vocational education also makes a wide range of programs of study available to a highly diverse population of students.

The HEA, as amended, authorizes programs that reflect a national consensus about what Federal responsibilities for postsecondary education should be. That consensus has emphasized the Federal responsibility to support educational opportunity. In fact, over 95 percent of all HEA appropriations are authorized by Title IV's student assistance and other student support programs. The remaining HEA appropriations are shared by programs designed to improve the nation's work force and maintain higher education's infrastructure.

Despite the consensus, policies during the 1980s led to a five percent real reduction in the total Federal investment in postsecondary education. According to the National Center for Education Statistics, Federal spending on postsecondary education programs alone—excluding federally sponsored research at universities—dropped by 30 percent in constant 1989 dollars between Federal fiscal years 1980 and 1989. This decline was exacerbated by provisions in the Tax Reform Act of 1986 that, among other things, reduced the purchasing power of student aid.

The impact of decreased Federal spending has been noticeable. It has reduced opportunities for students from low-income families; caused too much borrowing among low-income students—leading to costly loan defaults; contributed to declining production of teachers and Ph.D.s; and stretched the budgets of postsecondary institutions, creating backlogs of infrastructure needs.

Although Federal deficits loom large, cutting back on investment in education is penny-wise and pound-foolish. In reauthorizing the HEA, Congress should reverse the decline in Federal spending and improve programs serving the Act's three major functions:

- promoting access to postsecondary education;
- supporting work force preparation in areas of national need; and
- meeting higher education's infrastructure needs.

Specific proposals for amending the HEA are advanced in the following three sections of this document.

Promote Access to Postsecondary Education

As the centerpiece of Federal postsecondary education policy, the HEA Title IV student assistance programs promote educational opportunity for low- and middle-income students. Since their inception, they have enabled millions of financially needy Americans to pursue education beyond high school.

To ensure the integrity of Title IV programs and to improve their effectiveness in meeting national needs, major changes should be made. Specifically, Congress must:

- Launch a coordinated set of initiatives to assist disadvantaged youth;
- Reform student assistance programs for noncollegiate vocational education;
- Reduce borrowing by low-income students by increasing grant aid;
- Improve the student aid delivery system; and
- Support better Federal management.

In addition, Congress should continue to support the successful Federal programs that leverage state and institutional student aid funds. These include the State Student Incentive Grant program (SSIG) and the campus-based programs — Supplemental Educational Opportunity Grants (SEOG), Perkins Loans, and College Work-Study.

We also must ensure that new Federal requirements on ability to benefit do not prevent disadvantaged students from gaining access to postsecondary education.

Launch a Coordinated Set of Initiatives to Assist Disadvantaged Youth. Over 12.5 million American children (20 percent) lived below the official poverty line in 1988. American children are more likely to be poor than any other segment of our population, and although the majority of poor children are white, poverty rates for minority children are more than double the rate for whites.

Poor and minority students across America do not graduate from high school, enter the work force, go to college, or complete college at rates similar to those of other young people. When our children drop out of the educational and economic mainstream, we lose precious human resources.

There is a broad consensus that traditional student

aid programs offering grants and loans to pay for college have not been enough to reverse these trends for disadvantaged youth. Those programs must be supplemented with programs that will raise educational aspirations and achievement before the high school years—when there is still time to make a difference—and that will make the college experience more successful.

Many states, colleges, universities, private organizations, and individuals have already established programs to encourage poor and minority youngsters to complete high school and go on to jobs or college. The U.S. General Accounting Office's recent study of some of these programs showed that comprehensive early intervention and early guarantees of student aid are two of the most promising approaches. Such findings are consistent with the successes of the Federal TRIO programs and comparable state programs.

Unfortunately, existing programs reach only a small fraction of the population in need. To reach more of our youth, Congress should phase out existing intervention programs for disadvantaged youth in Titles IV and V and replace them with a coordinated set of initiatives to give:

- supportive services prior to and during high school;
- early aid guarantees; and
- supportive services during college.

Supportive Services Prior to and During High School. Existing intervention programs authorized in Title IV (Talent Search and Upward Bound) and Title V (School, College, and University Partnerships) should be phased out and replaced by a new National Liberty Partnership Program to provide matching funds to states for comprehensive early intervention for at-risk youth. Appropriations should be at least $300 million per year. The program should require states to mobilize a combination of colleges and universities, schools, nonprofit organizations, and for-profit organizations into partnerships for intervention.

New York's Liberty Partnership Program is a model. It provides funds for competitive grants to operate partnerships that serve students as early as middle or intermediate school. Grant applicants must be either colleges, universities, consortia of higher education institutions, or nonprofit community-based organizations. Each partnership must involve schools. Early reports from the first 41 partnerships that operated in 1989-90 are positive. With 41 continuing and 12 new partnerships, a total of 53 partnerships, 22 in New York City, will operate in 1990-91. For that year, the State has appropriated $13 million to pay for services for nearly 12,000 students, evaluation, and program administration. At a cost slightly over $1,000 per student, Liberty Partnerships are within the range of comparable programs.

The Liberty Partnership Program is the largest of its kind in the nation but it is not large enough. The students it serves represent only a fraction of New York's 430,000 10- to 19-year-olds living in poverty and the estimated 44,000 students who drop out of New York's schools each year.

Early Aid Guarantees. An early promise of enough money to pay for college is the second essential component of programs that can change poor children's educational aspirations and achievement. Congress should authorize $650 million per year for a new National Liberty Scholarship Program. Modeled after New York's Liberty Scholarship program, private "last dollar" aid guarantees, and the successful State Student Incentive Grant (SSIG) program, it should provide matching funds to states that make early guarantees of grant aid to college-bound youngsters from poor families.

Starting in academic year 1991-92, New York's Liberty Scholarship Program will guarantee "last dollar" grants—filling up aid packages after Pell and state grants are awarded—to any qualified applicant who receives a Pell Grant. Even students not served by Liberty Partnerships will be eligible. Recipients will have enough grant aid from a combination of state and Federal sources to pay their basic costs at any public sector college or university, or to pay the equivalent amount toward the cost of attending an independent or degree-granting proprietary institution. Recipients whose families make $18,000 or less will be eligible for maximum scholarships. Maximum awards will be reduced by $1 for every $3 of income over $18,000. Recent projections show that in its first year, the program will serve nearly 24,000 students for about $100 million, at an annual per student cost of about $1,500.

Supportive Services During College. Title IV already authorizes supportive services on campuses through its programs of special services for disadvantaged youth. In addition, a handful of states, including New York, New Jersey, Pennsylvania, and California, operate their own programs of services for disadvantaged college students. As in other states, New York's Opportunity Programs offer a rich array of supportive academic services such as pre-freshman summer programs, remedial and developmental course work, counseling, and tutoring. Over 46 percent of all Opportunity Program students in New York in 1987-88 were making satisfactory progress toward their degrees—a favorable outcome considering that of all U.S. students entering baccalaureate programs, 41 percent actually complete their degrees in six years.

Congress should phase-out existing programs that serve disadvantaged college students and replace them

with a new state-administered National Opportunity Program. In its Opportunity Programs, New York spends about $22 million per year for services (not including special financial aid) for 32,000 students at a cost per student approaching $700. Appropriations for the National Opportunity Program should be $100 million, with matching funds from states.

Reform Student Assistance Programs for Noncollegiate Vocational Education. The Federal government makes no independent determination about the content or quality of the wide range of educational programs eligible for Title IV student assistance. It relies on states and accrediting bodies.

This delegation of responsibility for educational quality made good sense when the Title IV programs were instituted in the mid-seventies. At that time, postsecondary education was offered primarily by collegiate institutions with many quality control mechanisms in place. Public colleges and universities were subject to state oversight. Both public and independent institutions had to maintain high standards to compete for students, faculty, research funding, and charitable donations. Moreover, other influences—regional accreditation, professionalization of faculty, worldwide scholarship standards, lay boards of trustees, alumni, admissions testing, consumer guides—all encouraged quality.

The institutional context, however, changed. Thousands of noncollegiate institutions, mostly for-profit vocational schools, appeared in response to student demand supported in large part by Title IV aid. Table 1 illustrates the magnitude of this evolution. These schools lacked many of the features that had assured quality at colleges and universities. More importantly, state oversight did not extend to them. To satisfy the requirement that noncollegiate institutions be authorized to offer education programs by states to participate in Title IV, most states deferred to accrediting bodies. Meanwhile, accrediting bodies eschewed regulatory functions, preferring to encourage quality through self-evaluation.

The national failure to enforce even the most minimal standards of quality in vocational programs has had undesirable consequences. In his most recent semiannual report to Congress, the U.S. Department of Education's Inspector General identified many abuses at for-profit vocational schools that have hurt consumers and caused the "bleeding of hundreds of millions of dollars" from the Federal treasury.

In response, Congress and the U.S. Secretary of Education have tightened Title IV institutional eligibility requirements and considered additional reforms such as mandatory disclosure of performance statistics to protect consumers.

We need better vocational education at all levels to serve our increasingly diverse population, meet work force needs, and compete in world markets. To assure improvement, Congress should consider approaches that would:

- Impose oversight requirements on states; and
- Replace Pell Grants with a new grant program for noncollegiate vocational students.

Impose Oversight Requirements on States. We should amend the HEA to require states to assume responsibilities for noncollegiate vocational education. Students should receive Title IV grants or loans only if they are enrolled in state-approved programs and institutions in states that are enforcing oversight statutes and regulations that meet nationally acceptable standards. Federal grants or contracts would be essential for supporting state oversight agencies' start-up and operating costs. Those funds should be allocated on the basis of the number of noncollegiate vocational programs being offered in each state, the number of students, and the dollar volume of Title IV money, or some surrogate of these numbers.

The Department of Veterans Affairs, formerly the Veterans Administration, has used this approach since 1944. It contracts with designated "state approving agencies" for inspection, supervision, and approval of study programs for which veterans are entitled to use their educational benefits. The benefits can only be used in approved programs. State approving agencies also are responsible for conducting on-site inspection of individual student records, examining schools' advertising, resolving consumer complaints, and providing technical assistance to assure compliance with the Department's standards. Federal funds for cost reimbursement contracts with states are allocated in proportion to the num-

Table 1

Number of U.S. Postsecondary Institutions Authorized to Participate in the Pell Grant Program

	1973-74	1989-90	% Increase
Public	1,871	2,360	26%
Private			
Nonprofit	1,700	2,377	40%
For-profit	827	4,086	394%

Source: U.S. Department of Education, Pell Grant Analysis Section, unpublished tables.

ber of institutions actively serving veterans in each state. There are currently 67 members of the National Association of State Approving Agencies because some states have more than one approving agency designated by their governors.

To develop national standards for minimally acceptable state oversight and avoid imposing uniform standards on the diverse postsecondary systems in the states, Congress should call upon such resources as the association of State Higher Education Executive Officers (SHEEO). Recently enacted laws in New York and California—along with the preliminary results of a SHEEO study of state licensing practices—indicate what the essential components of state oversight must be.

Replace Pell Grants with a New Grant Program for Noncollegiate Vocational Students. A complementary approach would be to establish a new Federal student aid program, the Postsecondary Vocational Training Grant Program, based on the successful SSIG program. Such a program would respond to recommendations in the National Center for Education and the Economy report, *America's Choices: High Skills or Low Wages*, and the William T. Grant Foundation report, *The Forgotten Half*. It could be financed, in part, with the more than $1 billion currently going to Pell recipients enrolled in noncollegiate vocational programs.

A state-administered Postsecondary Vocational Training Grant Program would have several advantages over the Pell Grant program in protecting consumers and meeting work force training needs. It could induce states to assume more responsibility for the quality of their postsecondary vocational programs as a condition of participation. It could also require some matching funds, say 10 to 20 percent, to give states a stake in where expenditures went. In addition, students would have the option of pursuing accredited programs at a wide variety of institutions, including area vocational schools, community colleges, and proprietary schools.

The program also would foster innovative state approaches not possible in the Pell program. For example, states could target Training Grants based on such criteria as work force needs or the performance of institutions providing the training. Similarly, states could develop systems that enable students to move easily between noncollegiate vocational training supported by Training Grants and college or training programs sponsored by businesses and labor unions. In this way, the Training Grants program can help meet changing work force needs and provide student career paths.

Reduce Borrowing Among Low-Income Students by Increasing Grant Aid. Borrowing became commonplace for postsecondary students and their families during the 1980s. In traditional student aid programs alone, borrowing rose from $7 billion in 1980-81 to $13 billion in 1988-89, a 34 percent real increase.

Many studies have attempted to measure the impact of educational debt on college access and choice, career and personal decisions, the national economy, and students' attitudes. After a comprehensive review of the data available in 1987, Janet Hansen of the Washington office of the College Board concluded, in *Student Loans: Are They Overburdening A Generation?*, that there was no clear evidence that educational debt was, on the whole, causing serious problems. She cautioned, however, that potential problems could not be overlooked.

More recent evidence indicates that some of those problems have materialized. Pell Grant purchasing power declined during the 1980s, leaving low-income families more reliant on loans. From 1980-81 to 1988-89, average Pell Grants increased 35 percent at public institutions while student expenses rose 70 percent. At private, nonprofit institutions, Pell Grants increased 14 percent, while student expenses rose 100 percent.

This reduced purchasing power and the imposition of a needs test on all prospective student borrowers in 1986 resulted in a larger share of student borrowers coming from low-income families. The 1987 National Postsecondary Student Aid Study revealed that 37 percent of New York State's undergraduate GSL borrowers were from low-income families. Twenty-two percent of the borrowers were dependents with family incomes under $20,000 and the other 15 percent were financially independent with family incomes under $11,000.

Similarly, Tom Mortenson of the American College Testing Program reported in 1990 that borrowing rates had doubled—from 12 percent in 1978 to 25 percent in 1986—among freshmen at collegiate institutions whose family incomes were below the official poverty line.

Mortenson identifies several problems caused by Federal policies in the 1980s. First, low-income students comprised a smaller share of collegiate enrollment in 1988 than they did in 1980—an access problem. Second, income segregation increased, with low-income students less likely to be found in universities and more likely to be found in two-year colleges in 1986 than in 1978—a choice problem. Third, low-income students became loan defaulters in great numbers. Finally, the college-going rates of black and Hispanic high school graduates dropped relative to whites between 1978 and 1986—although the gap has narrowed since 1986.

The most obvious way to reduce borrowing among low-income students is to increase grant aid. In addition to implementing the National Liberty Scholarship and Postsecondary Vocational Training Grant Programs outlined above, Congress should reform the Pell Grant program.

Reform the Pell Grant Program. Even if new grant

programs were to be established, the Pell program should remain the basic aid source for hundreds of thousands of low-income students at collegiate institutions. Table 2 shows their numbers in 1988-89. To reduce borrowing among Pell recipients, Congress should reform the Pell Grant and Stafford Loan programs to:

- **Make Pell an entitlement program:** The Pell Grant program loses its effectiveness when low-income students cannot plan on having some level of support to pay for their college expenses. During the 1980s, support was uncertain. Maximum Pell Grants ranged from $50 to $600 less than authorized amounts. On several occasions when appropriations were inadequate, awards were rationed after maximum grant levels were set, which reduced awards for some recipients and totally eliminated others from the program. Congress should make the Pell Grant program an entitlement program for full-time and all part-time students to reduce uncertainty and enable better student financial planning.
- **Extend Pell eligibility to summer study:** New York State's two major needs-based grant programs, the Tuition Assistance Program and Liberty Scholarships, can be used for summer study. In contrast, students who receive a Pell Grant for a traditional academic year are not eligible for funds for summer study during that same award year. This restriction is unnecessary because total Pell eligibility is generally limited to the full-time equivalent of five academic years and summer-term study would apply to that limit.
- **Front-load grants and back-load loans in aid packages:** Borrowing is less desirable early in college study when default is more likely and educational goals are less clear. To reduce borrowing among Pell recipients beginning their studies, larger grants should be available during the first two years of study. After the second year, grants should be reduced—with their lost purchasing power replaced by loans.

  The maximum Pell Grant for each of the first two years should be $4,800 as of 1992-93. For students with demonstrated need at higher priced institutions, annual Stafford Loan limits should remain at $2,625 for the first two years. For the third year and after, Pell Grants should be reduced to $2,400 and annual Stafford Loan limits increased to $5,250. This packaging proposal is summarized in Table 3.
- **Increase nontuition cost allowances:** The American Council on Education estimates that one million Pell recipients with family incomes under $20,000 have their awards reduced because they attend low-tuition institutions. When low tuitions are combined with unrealistically low nontuition cost allowances, Pell awards are capped by the 60 percent of cost rule.

  To improve Pell Grant's effectiveness in meeting these students' expenses, Congress should establish a realistic allowance for nontuition expenses and should require that allowance to be indexed to annual inflation. Current nontuition allowances for Pell are $1,700 for commuters living with parents and $2,300 for other students. These allowances have been increased only by 13 percent since 1980, while consumer prices have risen over 50 percent.

  Nontuition cost allowances in New York's Liberty Scholarship program are higher than in Pell. Based on actual average expenses at the State University of New York for room, board, books, supplies, and transportation, Liberty 1991-92 allowances will be around $2,900 for commuters living with parents and $5,000 for students living in campus housing. These allowances will be adjusted annually for inflation.

  Table 4 shows that by setting a more realistic Pell nontuition allowance of $2,900 for commuter students living with parents, low-income recipients at low-tuition institutions would get larger awards and that awards would decrease as the expected family contribution (EFC) increased. This would occur because limits other than the 60 percent cap would determine the award. Current Pell rules specify that the other limits are (1) allowable costs minus EFC and (2) the maximum grant minus EFC—with the lowest of the three limits determining the award.

Table 2

Low-Income Pell Recipients at U.S. Collegiate Institutions in 1988-89

	Dependents	Independents
All Recipients	1,230,400	1,398,800
Low-Income Recipients		
Total	1,085,200	1,384,900
Under $15,000	583,200	1,196,000
$15-30,000	502,000	188,900

Collegiate institutions are defined as public and private nonprofit institutions with programs of at least two years' duration.
Source: U.S. Department of Education, *1988-89 Pell Grant End of Year Report*, Tables 6B and 6C.

Simplify the Student Aid Delivery System. Since

Table 3

Packaging Reform Proposal

Year in School	Maximum Pell	Maximum Stafford	Combined Awards *
Proposed 1992-93			
1	$ 4,800	$ 2,625	$ 7,425
2	$ 4,800	$ 2,625	$ 7,425
3	$ 2,400	$ 5,250	$ 7,650
4	$ 2,400	$ 5,250	$ 7,650
2-yr totals	$ 9,600	$ 5,250	$14,850
4-yr totals	$14,400	$15,750	$30,150
Actual 1991-92			
1	$ 2,300	$ 2,625	$ 4,925
2	$ 2,300	$ 2,625	$ 4,925
3	$ 2,300	$ 4,000	$ 6,300
4	$ 2,300	$ 4,000	$ 6,300
2-yr totals	$ 4,600	$ 5,250	$ 9,850
4-yr totals	$ 9,200	$13,150	$22,450

* Actual awards would be the lesser of the maximum awards or demonstrated need, with Pell and state grants put in packages before loans.

the HEA amendments in 1986, Congress and the Administration have had control of the entire Federal student aid delivery system, not just the Pell delivery system. This change has had some positive results. For instance, more students can use free applications than ever before, and applications can be checked by computers to verify their accuracy. But, at the same time, the system has become so complicated and inflexible that it poses a barrier to the very individuals it is intended to serve.

To simplify the system, Congress will have to find a balance between equity and expediency. To maximize equity, important differences between students should make a difference in their aid eligibility. For expediency, however, some important differences should be ignored to make the system workable and cost-effective. With balance as a goal, Congress should design a system with:

- One unified need analysis for all Federal programs;
- Authority vested in financial aid administrators to make fine distinctions about special conditions and circumstances; and
- Simplified aid applications.

Create One Unified Federal Need Analysis for All Federal Programs. Need analysis is at the heart of the Federal delivery system because it determines who gets aid and how much they get. There are currently two separate Federal need analysis systems, one for Pell Grants and another for other Federal aid. Each system results in a different level of expected contributions from students and their families in determining financial need because each is based on a unique set of data elements and formulas. The differences confuse consumers and create inequities in the delivery system.

Consolidating these two systems will result in changes that will have significant cost and redistributive impacts on Federal, state, and institutional student aid programs. Congress should develop a unified Federal Need Analysis (FNA) system that incorporates the following elements and changes.

- **Income:** For first-time, Title IV recipients, FNA should use expected year income instead of base year income. Also, 100 percent of veterans' educational benefits should be treated as income.
- **Offsets to Income:** The basic living allowance should be higher than poverty level. Social security contributions— not currently an offset in Pell need analysis—should be counted as an offset because they are not available to pay for college.
- **Nonliquid Assets:** This is the most controversial topic related to need analysis. The basic question is whether families with equal incomes but substantially different nonliquid assets (e.g., home equity and farm equity) should be eligible for different

Table 4

Pell Awards for Commuters Living with Parents Using Different Nontuition Cost Allowances and Assuming $2,300 Maximum Grant

	Current	Proposed
Tuition/Fees	$ 800	$ 800
Allowances	$1,700	$2,900
Allowable Costs	$2,500	$3,700

EFC	Current Awards	Proposed Awards
$ 0	$1,500	$2,220
$ 400	$1,500	$1,900
$ 800	$1,500	$1,500
$1,200	$1,100	$1,100

Source: Adapted from an unpublished paper by Frederick J. Fischer of the U.S. Office of Management and Budget, 5/90.

amounts of aid. In theory, the answer would be yes—to assure equity. In practice, however, there are many problems with assessing nonliquid assets. It is difficult to know the value of nonliquid assets over time. Assessing assets penalizes saving and rewards consumption. Home equity often reflects inflated housing prices that bear little relationship to a family's capacity to purchase its home in today's market. Assessing nonliquid assets adds complexity to need analysis that prevents families from knowing what their awards will be. For all these reasons, New York State's Tuition Assistance Program has functioned for years without assessing assets and the program is perceived as being both expedient and fair. On balance, it seems that Congress should exclude nonliquid assets from home and farm equity from FNA. As needed, other features of FNA—such as assessment rates on income—could be adjusted to offset the budgetary impact of this change. Moreover, states or institutions that wanted to continue assessing nonliquid assets could add supplementary items to their own aid applications.

- **Liquid Assets:** To avoid penalizing dependent students who save their summer earnings, the combination of student contributions from earnings and from savings should not exceed 75 percent of discretionary income.

Vest Authority in Financial Aid Administrators. Congress should give financial aid administrators the authority to adjust data elements, student status, expected student and family contributions, and other elements of need analysis to address special circumstances. For example, the small population of displaced homemakers and dislocated workers could be processed more efficiently by aid offices than by extra data elements on millions of applications submitted for computerized processing.

Simplify Aid Applications. For the majority of aid applicants, applications would be simplified if questions about nonliquid assets were removed—or at least put on a separate "schedule," following the Internal Revenue Service's model. Likewise, questions used to determine dislocated worker or displaced homemaker status could be eliminated.

For populations such as welfare recipients or their dependents, Pell Grant and Stafford Loan eligibility should be "automatic" when certified by a case worker or other credible official. Similarly, reapplication for continuing students could be streamlined with technological changes.

After extensive consultation and research, the Student Aid Advisory Committee established by Congress in the 1986 amendments has developed several worthwhile proposals for simplifying the aid application process. Congress should consider those proposals.

Improve Federal Management of Student Aid Programs. In the face of mounting evidence of inadequate regulation of all the institutional participants in the Title IV assistance programs—educational providers, accrediting agencies, lenders, guaranty agencies, and private and federally sponsored secondary lenders—it is clear that Congress must make changes. Federal regulation must be authorized and enforced.

Congress should set the stage for shared responsibility by requiring the U.S. Education Department to establish formal links with state higher education agencies and to assign each state's loan guaranty agency exclusive jurisdiction over loan approvals for in-state borrowers attending in-state schools. It also should:

- Authorize a national clearinghouse to disseminate information about institutional recipients of Title IV and other HEA funds. At present, states have no way to determine which of their institutions receive funding from any HEA program. This means that states cannot organize efforts to promote, supplement, or monitor these programs.
- Require the U.S. Department of Education to develop an Integrated Information System for student financial aid programs that uses institutional classifications and codes from IPEDS, the Federal Integrated Postsecondary Education Data System. Such a system would provide states with more accurate and timely data that could be used to improve performance and accountability in student assistance programs.
- Authorize the development of a National Registry of individual or corporate school owners and postsecondary institutions that have been the subject of disciplinary actions by an accrediting body; a state licensure, loan guaranty, or grant agency; a judicial proceeding; or a Federal agency. This registry would be the institutional equivalent of Federal databases being developed to track student borrowers and Pell recipients. Modeled on the National Practitioner Data Bank of the Department of Health and Human Services, this registry would increase accountability across state boundaries.

Prepare the Nation's Work Force

America's colleges and universities play a major role in preparing the personnel needed by our social, political, economic, and cultural institutions. To continue serving this function, they must meet the challenges posed by a continuing knowledge explosion, emerging

technologies, increasing interdependence among nations, and the changing composition of the American population. Federal support is critical to:

- prevent shortages of qualified teachers and school administrators;
- prevent shortages of Ph.D.s; and
- foster global understanding in the nation's work force.

Prevent Shortages of Qualified Teachers and School Administrators. Although widespread teacher shortages do not currently exist, there are spot shortages in selected geographic and subject-matter areas and serious shortages of black and Hispanic teachers relative to the numbers of minority children in our schools. Table 5 shows the racial/ethnic mix of students and teachers in New York City's schools.

There are certainly shortages of qualified teachers in our nation's cities. In New York City, for example, over 60 percent of the teachers hired for September 1989 lacked both teaching experience and state certification.

Market forces alone are unlikely to alleviate imbalances between supply and demand for teachers, especially among minorities. Current Federal programs are completely inadequate. To produce qualified teachers to meet national demand, Federal initiatives, like those in 1990 House and Senate bills, must be launched on many fronts to:

- Increase the supply of newly certified teachers;
- Improve retention and development of teachers and school administrators; and
- Improve planning to project teacher supply and demand.

Increase the supply of newly certified teachers. A Rand Corporation study published in 1988 indicated that, unless other sources of supply made up the difference, declining numbers of new teacher graduates would cause teacher shortages during the 1990s. The nation's supply of newly certified teachers could be increased by new and expanded Title V programs to:

- **Increase Opportunities for Mid-career Changes into Teaching:** Part A of Title V authorizes grants to colleges and universities for programs that help individuals move into teaching careers from other careers. In Federal fiscal year 1990, Part A programs received appropriations of nearly $1 million, after two years of no funding. Part A should be reauthorized and receive appropriations of $15 million per year.
- **Offer Financial Incentives for Entering Teaching:** Congress should continue to increase the number and size of Paul Douglas Teacher Scholarships authorized in Title V with annual appropriations of $20 million. In addition, Congress should authorize Stafford Loan Forgiveness for Teachers in shortage areas already designated for the loan deferments authorized in the 1986 amendments.
- **Encourage Undergraduates to Pursue Teaching Careers:** Congress should create a National Teacher Corps to make grants to two-year and four-year colleges and universities for establishing programs to recruit, train, and give financial aid to undergraduates pursuing teaching careers. Corps programs should be required to have formal articulation agreements between two- and four-year programs, to encourage students with majors other than education to become teachers, and to actively serve students from groups underrepresented in teaching.
- **Encourage College Graduates without Teaching Credentials to Become Teachers:** As part of the National Teacher Corps, Congress should make grants to encourage colleges and universities to offer masters programs leading to teaching credentials for individuals who have baccalaureate degrees in fields other than education. These grants should be targeted to institutions, or consortia of institutions, preparing teachers for shortage areas.
- **Encourage Paraprofessionals Working in Schools to Become Teachers:** Congress should create a Teacher Career Opportunity Corps to make grants to two- and four-year colleges and universities for establishing part-time study programs to enable paraprofessionals working in schools to satisfy the requirements for becoming teachers. In New York State, there are approximately 30,000 teaching

Table 5

Racial/Ethnic Makeup of New York City Schools

	All Students	All Teachers	New Teachers
Total	100.0%	100.0%	100.0%
Black	38.4	18.3	25.8
Hispanic	34.3	9.1	16.2
White	19.8	71.0	54.7
Other	7.4	1.5	3.3

Source: NYS Education Department, *Educational Status of the State's Schools*, 1/90, pp. 189, 216.

assistants and aides—12,000 in New York City alone—who comprise a valuable pool of prospective black and Hispanic teachers.

- **Support Student Teaching Experiences:** Student teaching is a critical component of teacher preparation programs but it is underfunded nationwide. Congress should establish a Student Teaching Program to make grants to consortia comprised of colleges, universities, and school districts. These consortia would be responsible for providing student teaching experiences for undergraduate and graduate students. Appropriation levels should be $15 million per year.

Improve Retention and Development of Teachers and School Administrators. To maintain an adequate supply of qualified teachers and school administrators also requires that we improve retention among current school personnel and make professional development opportunities available. We must:

- **Support Professional Development:** Part C of Title V authorizes professional development programs for both teachers and administrators. In Federal fiscal year 1990, administrator programs received appropriations of $3.8 million, down from $8.2 million in 1988, while teacher development programs went unfunded. Congress should reauthorize the teacher development component of Part C at $50 million and administrator development at $20 million.
- **Provide More Fellowship Opportunities for Teachers:** Christa McAuliffe Fellowships reward outstanding teachers with an opportunity to extend their professional development. The program is authorized in Part D of Title V and received appropriations of $1.9 million in Federal fiscal year 1990. Congress should raise this amount to $27 million.
- **Promote School Reform:** Along with the need for heightened cultural awareness, the many changes occurring in curriculum, educational technologies, school organization, and school governance require teachers and school administrators to learn new skills and approaches. Congress should authorize a School Reform Program to give grants to colleges and universities that help schools and school districts meet the challenges of reform.

Improve Planning. Without up-to-date and accurate information, teacher shortages cannot be projected, training needs cannot be determined, and planning cannot occur. Congress should:

- **Provide More Support for State Planning:** Part E of Title V currently authorizes State Task Forces on Teacher Training. It should be reauthorized and funded at $2 million per year.
- **Promote Regional Planning:** Most states are not able to project their demand for newly certified teachers because they lack basic data for doing so. Moreover, because schools in many states hire teachers from across state boundaries, single state projections would be distorted.

  To address these types of problems, the states served by the Northeast Regional Lab have initiated a Northeast Educator Supply and Demand Study. Among other things, the study will attempt to project regional supply and demand for teachers and examine regional solutions to shortages such as portable credentials and pension fund accumulations.

  With this joint undertaking as a model, Congress should establish a Regional Teacher Supply Planning Grant Program with appropriations of $2 million.

Prevent Shortages of Ph.D.s. Many projections indicate that, unless preventive steps are taken, America will face severe shortages of Ph.D.s before the year 2000. Shortages are expected in all disciplines in the academic labor market, including the humanities and social sciences, because current faculty will begin to retire just as undergraduate enrollment is expected to pick up. These shortages will be exacerbated by competition for Ph.D.s from nonacademic employers here and abroad. Less than half of all new doctorate recipients plan to take jobs in academia. Table 6 shows one projection of the number of qualified candidates per position for arts and sciences faculties for the coming years.

America's supply of Ph.D.s has not been adequately replenished in the past decade. Since 1979, the number of U.S. citizens receiving doctorates declined by 9 percent. That decline has been masked by increased numbers of foreign students receiving degrees at U.S. universities. But, neither foreign doctoral recipients nor new immigrants can be expected to meet projected national needs.

We have not been able to reverse the declining production of U.S. doctorates because we have not been able to attract sufficient numbers of students from either the traditional pool of white males or from the underused pools of minorities and women. The number of women doctorates increased substantially in the late seventies and early eighties, but that increase has leveled off. For minorities, the situation is, according to a National Research Council official, "a disaster." Blacks earned 23.2 percent fewer doctoral degrees in 1989 than they did in 1979. Although Hispanics showed some gains over the same period, their numbers remained small. Blacks earned only 3.6 percent and Hispanics only 2.5 percent

Table 6

Qualified Candidates per Position for Arts and Sciences Faculties

Period	Low Projections	High Projections
1987-92	1.6	2.0
1992-97	1.3	1.6
1997-02	.8	.9
2002-07	.8	.9
2007-12	.9	1.1

Shortages are defined as fewer than 1.3 candidates per position.

Source: William G. Bowen and Julie Ann Sosa, *Prospects for Faculty in the Arts and Sciences*, Figure 8.1, 1989.

of all 23,200 doctorates earned by U.S. citizens in 1989. In high-demand fields, minority representation is far below 1 percent; in low-demand fields, such as education, minority recipients are more heavily represented.

The American Council on Education reports that faculty shortages have already appeared on U.S. campuses in high-demand fields such as engineering and business. Surveys of New York's campuses reveal similar shortages.

Market forces have not produced the number of Ph.D.s needed to meet national needs. To avert a crisis, public and private universities, in conjunction with nonprofit foundations and industry, are taking stock of programs and improving financial incentives to draw America's promising scholars, particularly women and minorities, into doctoral study. In addition, states like New York are operating a wide range of programs to attract students into fields of study and levels of study where they are underrepresented.

Although some recent gains in graduate enrollments have resulted from these actions, the Federal government also must step up its efforts to directly and indirectly support graduate and professional education. Among its vehicles are the programs authorized by HEA Titles IV, IX, and X, which should be altered to:

Give More Financial Aid for Graduate Study. Title IX programs already provide unique support for graduate education. Patricia Roberts Harris Fellowships provide funds for advanced study in public service fields and for minority students; Jacob K. Javits Fellowships support advanced study in the humanities and social sciences; and Graduate Assistance in Areas of National Need gives grants to institutions with programs in national shortage fields.

Congress should increase current levels of support in these three programs. The total number of new fellowships and traineeships funded each year by these programs should increase to 2,000; at least $25,000 per student should be available for annual stipends, tuition, and institutional allowances; and, support for doctoral students should last for at least four academic years. To accomplish these goals, authorizations should total $200 million.

Encourage Disadvantaged and Minority Students to Pursue Graduate and Professional Study. Congress also must add funding to programs that encourage disadvantaged or minority individuals to pursue graduate or professional study, including: Grants to Institutions to Encourage Minority Participation in Graduate Education; Assistance in Training for the Legal Profession; Minority Science Improvement Program; Minority Support in Science and Engineering Program; and, the Ronald E. McNair Post-baccalaureate Achievement Program.

Improve Administration of Graduate Education Programs. To improve the effectiveness and efficiency of the HEA's graduate and professional education programs, these programs should be incorporated into Title IX and their administration should be consolidated into one unit in the U.S. Department of Education. Furthermore, to avoid duplication of effort and improve recruitment into these programs, states should be made more active partners in their administration.

Foster Global Understanding in the U.S. Work Force. America's role in the world has changed. Instead of being the preeminent democratic industrialized nation, we are one among many nations that share responsibility for world affairs and compete for the world's resources. This new role requires us to develop new skills and approaches in such areas as languages, intercultural understanding, business, and law. To develop these skills, leaders in government, business, industry, and academia have called for a concerted national effort.

American colleges and universities, with their vast institutional and human resources, will be expected to make major contributions to this effort. However, because their budgets are already stretched with many competing demands, they will need a new infusion of resources to meet international challenges.

The HEA is one of many vehicles for fostering international understanding in America's work force. Congress should increase funding for existing international education programs and establish new programs for international exchanges, telecommunications, and resource centers. Moreover, states should become more active partners in these international activities.

Expand International Education Programs. HEA Title VI provides grants to institutions of higher education for the establishment and operation of programs such as foreign language and area studies centers, language resource centers, and intensive summer language institutes. Title VI also makes grants to institutions to enhance business education programs and to expand the capacity of the business community to engage in international economic activities. Congress should double the 1990 appropriation of $35 million for these Title VI programs.

Create New Programs for Global Understanding. The Federal government should continue to focus its resources on established exchange initiatives that are not part of the HEA. In addition, three new Title VI programs should be established:

- an International Exchange Program to give grants to states to expand foreign study opportunities for college and university students.
- an International Telecommunications Program to give grants to states to establish or extend campus telecommunication links with other nations.
- an International Resource Centers Program to give grants to states for campus-based centers serving the global education needs of elementary and secondary schools, businesses, and communities.

Meet Infrastructure Needs

The physical infrastructure of American higher education—its buildings, laboratories, equipment, and library collections—is a vast national asset. These resources are deteriorating at the same time that new facilities and equipment are needed to keep pace with new knowledge and technologies and to serve an increasingly diverse population of students and faculty. Unless we pay immediate attention to the infrastructure of our colleges and universities, the nation's teaching and research capacity will erode further.

Congress must act to:

- halt the deterioration of campus facilities;
- preserve and develop academic libraries and information systems; and
- strengthen institutions serving disadvantaged and underrepresented populations.

Halt Deterioration of Campus Facilities. A study recently conducted by the National Association of College and University Business Officials (NACUBO) and the Association of Physical Plant Administrators (APPA) in cooperation with Coopers and Lybrand yielded some alarming findings about the deteriorating condition of buildings on American campuses. It estimated that our colleges and universities required an investment of some $60 billion to renew and replace aging facilities, $20 billion of which was urgently needed to prevent facilities from becoming unsafe or unusable. Studies by the National Science Foundation and several states have reached comparable conclusions. This $60 billion problem accumulated over many years because other needs had higher priorities on campuses. We urgently need to:

Reinvest in Campus Facilities. To reduce the current backlog and prevent future problems, we must begin a joint Federal, state, and institutional campaign. Title VII authorizes several programs to provide grants and loans to institutions for the construction, reconstruction, and renovation of undergraduate and graduate academic and housing facilities. However, funding has been substantially reduced in some of these programs and entirely discontinued in others. To reverse the trend of deteriorating campus facilities, Congress should authorize $500 million per year for the next 10 years.

Improve Facilities Planning. Congress should create a Facilities Management Grant Program to improve planning for capital needs on American campuses. The program should provide grants to states or regional associations to encourage facilities planning, publicize model programs, and give technical assistance to public and private colleges and universities. This program is essential because campus officials tend not to evaluate the condition of their physical plant in systematic ways. A recent survey of New York's colleges and universities showed that fewer than 20 percent of the respondents had conducted a Comprehensive Facilities Audit or its equivalent even though this type of self-evaluation had been recommended by leading professional associations as long ago as 1983.

Preserve and Develop Academic Libraries. Libraries on American campuses are an unparalleled and indispensable information resource. As they enter the 1990s, these institutions face daunting challenges posed by the continuing information explosion at home and abroad, emerging technologies, burgeoning disciplines and interdisciplinary fields, changing student demands, and deterioration of large parts of their collections.

The HEA helps to maintain the quality of America's academic libraries. In Federal fiscal year 1990, its Title II programs authorized appropriations of over $10 million. Although Part A programs for developing college libraries' resources and network links have not received appropriations for several years, other parts of Title II have been funded. Part B programs, supporting research and professional development in library and information science, have helped to meet growing demand for a more

ethnically and racially diverse library profession and to develop leaders in our schools of library science. Part C programs help make unique collections in research university libraries available and accessible. Part D programs supply grants to institutions for technology, networking, and resource sharing. Moreover, the Title VII programs have helped upgrade library facilities for new technologies and for persons with disabilities. Continued Federal investment in the nation's information infrastructure is essential.

Invest More in Existing Academic Library Programs. Congress should reauthorize and expand existing HEA programs to meet the current and future needs of academic libraries.

- Title II programs alone should receive a minimum investment of $31 million per year.
- Title VI-Part B programs for acquisition of foreign library materials should be funded.
- Title VII programs for equipment and facilities should continue to include libraries.

Create New Programs for Library Development. The reauthorized HEA should enable academic libraries in every state to expand resource sharing within state boundaries, across the nation, and around the world and take full advantage of today's information and telecommunications technologies for instruction and research. It should also enable academic libraries to continue developing resources and services needed by students, faculty, and research personnel. To accomplish these ends, we propose:

- an Academic Library Technology and Cooperation Program to replace the current Title II Part A. This new program should augment the current Part D programs with an expanded emphasis on linking needy institutions to resource sharing networks and the proposed National Research and Education Network.
- a Library Work-Study Program within Title IV's College Work-Study Program to encourage financial aid administrators to designate some portion of College-Work Study funds for library jobs. Student employees are needed because interlibrary resource sharing is constrained by shortages of staff to pull materials from shelves and photocopy and dispatch copies to other libraries. Libraries currently have no special priority in the use of Work-Study funds.
- a Work Force Preparation Collections Program to help academic libraries acquire career, training, and other materials needed to train workers in an information society.

Strengthen Institutions Serving Disadvantaged Students. To maintain and expand American higher education's capacity to serve all segments of our population, Title III authorizes programs for institutions serving students from disadvantaged or underrepresented groups. Part A provides grants to strengthen institutions that serve large concentrations of educationally disadvantaged, underrepresented, or minority students who are low-income individuals; Part B provides comparable grants to historically black colleges and universities; and Part C supplies grants to help both types of institutions build their endowment reserves. In Federal fiscal year 1990, grants authorized by Parts A and B supplied $220 million. In that same year, another $20 million was appropriated for Part C grants. Congress should reauthorize these Title III programs and continue making annual increases in their appropriation levels.

Recommendations

During the upcoming reauthorization, Congress should focus on three major purposes of the Higher Education Act:

I. Promote equality of opportunity for postsecondary education. Congress must improve the effectiveness and integrity of the Title IV programs providing student assistance and supportive services.

1. We must enhance programs for disadvantaged youth by replacing existing programs with a set of state-administered programs:

- National Liberty Partnerships to provide comprehensive supportive services prior to and during the high school years;
- National Liberty Scholarships to guarantee "last dollar" grant aid for basic costs at public colleges and universities or the equivalent amount at nonpublic collegiate institutions; and
- National Opportunity Programs to provide supportive services on campuses.

2. We must reform student assistance programs for noncollegiate vocational education. As a condition of improving the Pell Grant program for collegiate study, Congress should:

- Require state oversight of noncollegiate postsecondary vocational education programs and institutions participating in Title IV student assistance programs; and
- Replace Pell Grants with state-administered Postsecondary Vocational Training Grants for students in noncollegiate vocational programs.

3. We must reduce borrowing by low-income students in collegiate programs of study by increasing Pell Grant awards. We should shift reliance on borrowing away from the early years of collegiate study by:

- Making Pell an entitlement program for full-time and all part-time students;
- Increasing the maximum Pell Grant for the first two years of collegiate study to $4,800 but keeping it at $2,400 for subsequent years;
- Maintaining the annual Stafford loan limit at $2,625 for the first two years of study and increasing it to $5,250 in later years of study; and
- Raising the allowance for nontuition cost of attendance in the Pell Grant program to adjust for inflation and reflect actual student expenses.

4. We must maintain support for smaller Federal programs that leverage state and institutional investments in student aid. Funding for the successful State Student Incentive Grant program (SSIG) and campus-based programs (Supplemental Educational Opportunity Grants or SEOG, Perkins Loans, and College Work-Study) should be enhanced.

5. We must simplify the student aid delivery system by incorporating:

- A single need analysis for all Title IV programs, with authority vested in financial aid administrators for handling special cases and special circumstances, with special attention to the issue of nonliquid assets; and
- Simplified application procedures, including "automatic" eligibility for special populations such as dependents of welfare recipients.

6. We must improve Federal management of student aid programs, especially in Federal oversight of institutions, lenders, and loan guarantors. Formal collaboration between Federal and state oversight agencies must be established. This effort should include:

- a national clearinghouse to disseminate information about institutional recipients of HEA aid;
- an Integrated Information System to keep data on student financial aid programs; and
- a National Registry of individual and corporate school owners and postsecondary institutions that have been the subject of disciplinary actions.

II. Support work force preparation in areas of national need. To assure the nation an adequate supply of qualified labor in areas of need, the programs in HEA Titles V, VI, and IX should be reauthorized and improved.

1. To increase the supply of newly certified teachers, particularly minority teachers, Congress should take a comprehensive approach that would:

- Increase opportunities for mid-career changes into teaching;
- Improve financial incentives for entering teaching through the Paul Douglas Teacher Scholarships and new Stafford Loan Forgiveness for Teachers;
- Create a National Teacher Corps to encourage undergraduates and graduates without teaching credentials to enter teaching;
- Establish a Teacher Career Opportunity Corps to encourage paraprofessionals already working in schools to become teachers; and
- Create a Student Teaching Program to fund student teaching experiences.

2. To improve retention and development of teachers and school administrators, Congress should:

- Increase funding of professional development centers;
- Provide more Christa McAuliffe Fellowship opportunities; and
- Create a School Reform Grants program for colleges and universities working to reform schools and school districts.

3. Congress should reauthorize and fund state planning bodies and support regional planning to improve the supply of teachers.

4. To alleviate existing shortages of Ph.D.s in selected fields and prevent projected ones in all fields, Congress should consolidate HEA programs supporting graduate education into Title IX. These programs should be managed as a unit, provide higher annual awards to more fellowship recipients, and target funds to students from seriously underrepresented minority groups.

5. To foster global understanding in the U.S. work force, Congress should increase funding for existing Title VI international education programs and create new Title VI programs to expand overseas study for undergraduates, enhance international telecommunications links on campuses, and establish campus-based international resource centers for schools, businesses, and communities.

III. Meet higher education's infrastructure needs. To maintain American higher education's capacity to serve the nation's instructional and research needs, HEA funding must help pay for more of its costs.

1. To halt the deterioration of campus facilities, HEA Title VII should provide at least $500 million per year

for the next 10 years. In addition, Congress should establish a Facilities Management Grant program to foster capital planning and publicize exemplary practices.

2. To preserve and develop academic libraries, Congress should increase HEA Title II funding for research and professional development in library and information science, for preserving and developing collections, and for technology and resource sharing. Congress should also should provide funds for acquiring foreign periodicals and for facilities development.

3. To strengthen institutions serving disadvantaged youth, Congress should continue to increase grants made to institutions serving high concentrations of students from disadvantaged backgrounds or underrepresented groups.

IV. TRANSITION TO WORK: FULL ACCESS TO SERVICES FOR PEOPLE WITH DISABILITIES

Services for Persons with Disabilities: A Common Thread

The Federal programs authorized by the Rehabilitation, Individuals with Disabilities Education, and Vocational Education Acts have a common thread relating to people with disabilities: the potential for integration of service delivery in employment training and the promotion of independent living. This section describes New York State's continuing efforts to provide full access to all educational and vocational services and resources that have an impact on the employment opportunities of individuals with disabilities and their opportunity to live as independently as possible. We then use the issues and problems facing New York to formulate a series of recommendations for the scheduled reauthorization of the Rehabilitation Act.

The national commitment to full opportunity for people with disabilities is expressed in several Federal laws. The Individuals with Disabilities Education Act mandates a free appropriate education for all children with disabilities in the least restrictive environment. This Act broadened the responsibility of state education agencies to assure education for such children within the state, regardless of where they are being educated. The reauthorization of this Act has expanded access to educational and transitional opportunities that will lead to employment.

The Rehabilitation Act of 1973 provided clear evidence of Congressional intent to eliminate discriminatory practices against persons with disabilities. Subsequent reauthorizations have strengthened the employment focus and priority for serving persons with severe disabilities. Section 504 of the Rehabilitation Act specifically prohibits discrimination in any program receiving Federal assistance. Other sections prohibit employment discrimination, require affirmative action by Federal agencies and contractors in employing individuals with disabilities, and require that federally owned, occupied, or financed buildings are accessible.

The recent passage of the Americans with Disabilities Act, which prohibits discrimination in the private sector, also will protect individuals' rights in the workplace.

The Voting Accessibility for the Elderly and Handicapped Act of 1985 was enacted "to improve access for handicapped and elderly individuals to registration facilities and to polling places for Federal elections." The law requires that, after each election, states must report to the Federal Election Committee (FEC) on the number of their accessible and inaccessible polling places and the reasons for inaccessibility. The FEC compiles and sends the information to Congress for review.

The New York State Experience

New York State has been committed for many years to helping its citizens with disabilities lead productive, useful, and satisfying lives. Many aspects of New York's educational program for children with handicapping conditions, for example, equal or exceed Federal mandates.

The Office of Vocational and Educational Services for Individuals with Disabilities (VESID) is the designated New York State vocational rehabilitation unit for persons with disabilities other than the legally blind. Last year, VESID provided vocational rehabilitation services to more than 74,000 people, including:

- 9,422 people completed service plans and were placed in jobs;
- 62 percent of the total served had severe disabilities;
- 70 percent of those rehabilitated became competitively employed; and
- 15,946 school-referred youth were directly assisted in planning for the transition from school to work or postsecondary education.

VESID services assist people with disabilities in preparing for, finding, and adjusting to employment. To be eligible for services, individuals must have a physical or mental disability that impedes their ability to work. There must also be a reasonable expectation that, if assisted, the individual will become employable.

VESID works with people with disabilities to assist their entry into the job market by providing an array of services to meet unique needs. Throughout the vocational rehabilitation process, consumers work with professional counselors to choose, develop, and complete plans for employment. Services may include medical and vocational evaluation, educational and vocational counseling and programs, job training and placement, job follow-up, and other activities to support rehabilitation objectives.

VESID, as one of the major offices of the State Education Department (SED), is closely linked with the other educational and cultural programs that can benefit people with disabilities, from elementary through postsecondary levels. Coordination among them, as well as other New York State Departments, is a VESID priority.

In addition to providing vocational rehabilitation services, VESID also administers services to persons with severe disabilities who may be unable to achieve a vocational objective through a network of 34 independent liv-

ing centers across the State. The centers are community-based, consumer-controlled, nonresidential, advocacy organizations that help people with disabilities live more independently in their communities. Also, the Readers Aid Program, under VESID's auspices, provides readers to postsecondary students who are deaf, blind, or visually impaired.

Just as American business and labor are responding to a changing global economy and work force, the vocational rehabilitation system is evolving so that persons with disabilities can meet employer needs in the future. We are working closely with business and industry leaders to match training activities to business recruitment needs and thus provide skilled employees.

VESID is also on the cutting edge of advances in technology that allow persons with disabilities more independence. VESID is a key force in coordinating available technology with other state offices and consumer groups. VESID works with rehabilitation technology-related industries so equipment that is developed or modified meets the needs of individuals with disabilities.

All of these efforts are reflected in VESID's new mission statement, which guides services and program administration. This mission highlights VESID's role in developing and coordinating lifelong education services so that people with disabilities can lead self-sufficient, self-directed lives.

Linking Vocational and Educational Services

VESID is working toward linking services for individuals with disabilities to other parts of the education system, including schools, colleges, libraries, museums, and adult education programs. This approach allows all programs and agencies providing services to coordinate operations and enhance accessibility for everyone, regardless of age or disability. It also allows vocational rehabilitation to be more closely linked to education programs that adults with disabilities will need to make later career changes.

The New York State Board of Regents has adopted, and is implementing, a 10-point policy for linking services for people as they move from school programs into adult services. The policy includes transitional planning; vocational assessment; the role of the Committees on Special Education; education for lifelong learning; college and university programs; interagency councils; occupational education; and, coordinating mechanisms.

VESID counselors provide vocational rehabilitation services to approximately 16,000 school-referred consumers per year. Early referral to the VESID system ensures a continuum of services for youth with disabilities while they are in school. More importantly, their vocational preparation is enhanced and chances of obtaining competitive and meaningful employment are increased.

Employment: The Key to Full Success

Perhaps the ultimate issue for persons with disabilities is finding opportunities for meaningful employment in their community that match their abilities and interests. Two interrelated trends have created a strong market for their employment: the growth of service industries, which now accounts for the largest percentage of jobs in America; and a decreasing number of available workers to fill the job openings. These trends combine to offer more job opportunities for people with severe disabilities.

During the 1970s, there was tremendous growth in hospitality industries; i.e., restaurants, hotels, and food service. These businesses employed a significant percentage of America's post-World War II baby-boom generation entering the work force. They were able to accommodate an average 200 percent turnover as the number of new companies and company properties increased rapidly.

During the 1980s, the rapid growth continued but the number of teenagers entering the work force dropped 14 percent. In fact, it is projected that six million fewer teenagers will have entered the work force between 1985 and 1990. The gap between the number of employees needed and the pool of potential workers will continue to widen in the future.

Meanwhile, several major industries discovered a large pool of untapped workers: people with disabilities. The hospitality, retail, finance and banking, and insurance industries now are actively looking to work with private and public vocational rehabilitation and occupational educational programs to recruit dependable individuals with disabilities.

Greater emphasis needs to be placed on interacting with not only business and industry leaders, but also trade and labor unions. The State Education Department, through VESID, has joined with key employment leaders to develop appropriate career opportunities for people with disabilities. VESID is working to match its consumers' employment needs with the recruitment needs of the available employers. This will create an environment where employers, with VESID technical assistance, will be able to offer integrated employment options and be more aware of the needs of persons with disabilities in the community.

In an effort to significantly increase employment opportunities in New York State, VESID is developing agreements and programs with major corporations and small businesses. Four of the major initiatives this year have been with The Greater New York Automobile Dealers Associa-

tion, the New York State American Federation of Labor-Congress of Industrial Organizations, Pizza Hut, and the New York State Hospitality and Tourism Association.

Efforts to increase employment opportunities must further emphasize that vocational rehabilitation services should prepare people for careers, not only entry level jobs. For many, the extent of their disabilities prevents them from pursuing traditional career development activities while holding full- or part-time jobs. Vocational rehabilitation should continue to be involved with people until they reach their maximum potential.

Integrated Employment

Until recently, persons with severe disabilities have had very limited opportunities to join the competitive work force because they need ongoing services to support such employment. In New York State, more than 18,000 persons have been employed in sheltered workshops. Many of these individuals, however, could benefit from employment in integrated community work settings if the long-term support services that might be needed to sustain them in an integrated setting were available. We need to expand programs so that persons are employed closer to their full potential than is now the case.

Included within integrated employment options is supported employment, which is directed toward people who have not been served, could not previously complete a vocational rehabilitation program because they lacked ongoing services, or were placed in sheltered day programs. It may be an attractive alternative for students with disabilities who are aging out of school programs but cannot yet compete in the labor market. Linkages already exist between rehabilitation service providers and local businesses that should foster supported employment opportunities.

Federal and State efforts continue to open more integrated employment programs to persons with long-term service needs. VESID has taken the lead in New York by joining with the State Offices of Mental Retardation and Developmental Disabilities (OMRDD) and Mental Health (OMH) to plan and fund these initiatives.

VESID has been charged with the lead role in coordinating supported employment programs for persons with severe disabilities. VESID administers all supported employment programs that provide intensive training services except for mentally ill people, who are served by the Office of Mental Health. For all disability groups, VESID is the main agency for further development of new programs for supported employment.

Activities during the past year included the transfer of the intensive service supported employment contracts from the Office of Mental Retardation and Developmental Disabilities to VESID. VESID is also developing statewide policies and procedural guidelines associated with supported employment. Uniform reporting and payment systems are being developed that will be used by all agencies providing supported employment services. In addition, VESID is responsible for the ongoing state-funded support services that are necessary to maintain jobs for people who are not under the authority of the OMRDD or the OMH.

These activities will lead to a coordinated interagency system for supported employment across the State and should result in about 3,000 people being placed in such services during the 1990-91 State fiscal year. In keeping with VESID's objectives to provide integrated, community-based employment opportunities, the program will be one of the major options for people with severe disabilities who have had limited opportunities in the past.

Interagency Coordination

The coordination of services among agencies is critical to improving access to vocational training and employment opportunities for individuals with disabilities. The requirements of the plethora of Federal and state laws that affect people with disabilities must be closely coordinated to eliminate duplication and inconsistencies. The goal of overall coordination among agencies is to integrate Federal, state, and private services and promote the full and independent participation of all people with disabilities in our society, regardless of age or disability.

On the state level, one of the major priorities of VESID is to work with other state, Federal and voluntary agencies to provide effective services. A primary means for accomplishing this was creation by the Governor and the Board of Regents of the State Interagency Council for Vocational Rehabilitation and Related Services to coordinate services among the major state agencies.

The Council issued a preliminary report in January 1990 that focused on improving access to vocational rehabilitation and related services through a streamlined, better coordinated eligibility and intake process. These recommendations were supported by the Governor and Regents. The Council since has focused on immediate and long-term service recommendations concerning the intake and referral process, supported and sheltered employment programs, and cross-agency training.

Recommendations for the intake and referral process include the development of functional criteria to facilitate appropriate referrals, updating and refining State agency manuals and practices, and reciprocal acceptance of disability determinations wherever possible. Cross-

systems training activities are being developed to enhance the awareness of services provided by each State agency, including intake and eligibility requirements, and to collect and disseminate information on training activities related to vocational rehabilitation. Principles and operating guidelines for supported and sheltered employment were developed as well as short- and long-term actions related to funding and job coach issues.

In addition to Council activities, VESID has continued involvement with individual agencies. Such interaction creates a better understanding of VESID programs and services, improves access to resources available through other agencies, and helps VESID staff better meet consumer needs.

Interagency coordination is implemented at the local level by VESID district office staff members representing the agency on various community boards and committees, including independent living services boards, mentoring programs for young adults with disabilities, Community Services Boards, Private Industry Councils, aging-out task forces in schools, placement consortiums, advocacy groups, and professional organizations. The central office provides technical assistance to district offices to implement state-wide agreements and assist with local interagency issues.

Improving Access to Services

All individuals must have opportunities to learn about and gain access to vocational rehabilitation services. However, some systems, policies, and procedures of the vocational rehabilitation process have effectively limited access. For instance, Federal requirements for evaluation of rehabilitation potential delve into areas that only indirectly relate to a person's vocational needs.

During the past year, in collaboration with related agencies and organizations, a VESID plan was developed to improve access. It seeks to provide timely services in the most integrated setting possible while involving the consumer in all decisions and actions. The plan was designed to achieve three major objectives:

- *Timeliness* — Consumers shall receive needed services as quickly as possible.
- *Simplicity and Clarity* — Service delivery shall involve only the steps necessary to achieve the goals established for each consumer. VESID policies and procedures will be readily accessible and comprehensible.
- *Quality* — The services delivered to each consumer shall be of highest quality. VESID staff will be trained and prepared to provide "state-of-the-art" expertise in their field.

Changes in VESID policy and procedures based on the plan will be closely aligned with the work of the Interagency Council and emphasize simplifying and streamlining access and working with other agencies to develop uniform referral procedures.

Each district office has established an access committee composed of management, support, and professional staff to identify local impediments to consumer access and propose solutions. The committees completed an examination of their respective local office practices that might impede access to services. To improve access to services, the offices were instrumental in designing new policies that set time frames for case movement, revise supervisory roles, simplify applications for service, and focus on the goals of the person seeking services.

Federal Funding Improvements

The current Federal funding formula, based on a squaring of per capita income and population trends, does not account for the level of need of persons with disabilities. The formula effectively penalizes states such as New York that have a high average income or do not have a growing population, but may have more prospective consumers. As needs for rehabilitation services change and expand, the Federal funding formula must be revised to equitably meet demand. This must include full support for necessary innovations such as supported employment and rehabilitation engineering.

Funding must be sufficient to sustain current efforts and expand them as necessary to meet identified needs. State resources already are too scarce to be further stretched by increasing the states' share of rehabilitation costs. Federal support must not be merely maintained, but increased to provide adequate services as new populations have been deemed either eligible for vocational rehabilitation services or targeted for priority in the planning of service delivery. These populations include persons who are learning disabled or have traumatic brain injuries and autism.

The rapid increase in the number of people affected by AIDS and recent directives by the Rehabilitation Services Administration (RSA) regarding their eligibility for vocational rehabilitation services creates a major planning issue for Congress and RSA. Policy decisions must address how the costs of the medical needs of this population will be met and to what extent state rehabilitation agencies will be expected to contribute to the high cost of prescription drugs or medical services, if they are part of an Individualized Written Rehabilitation Program.

Summary

During the past year, the New York State Education

Department and the Board of Regents have made significant strides in implementing necessary changes for determining how services to persons with disabilities should be provided. It has become clear that an even stronger partnership with the Federal government must be forged to implement the needed changes. States need maximum flexibility and more equitable and increased funding to meet the multiple and varied needs of persons with disabilities.

While increased funding is basic for providing comprehensive rehabilitative services, it must be coupled with consistent and flexible standards across all the involved Federal agencies that encourage consumer-centered, innovative, and effective practices. Improvement in Federal intradepartmental communication and planning, as well as strengthening the working relationship with the states, is needed to achieve this end.

As Congress begins the process of reauthorizing the Rehabilitation Act, the Regents propose the following recommendations for reauthorization based on VESID's renewed commitment to help people with disabilities meet their full potential.

Recommendations:

1. In reauthorizing the Rehabilitation Act, Congress should rename the Act to more accurately reflect its mission in the interest of promoting independence, postsecondary opportunity, and integrated employment for individuals with disabilities.
2. To link program plans within states, the Act must allow for synchronization of state plans for vocational rehabilitation and special education.
3. Access to adult, continuing, and higher education should be a priority of the Act as part of the overall effort to increase job and career opportunities for persons with disabilities throughout their lives.
4. The active participation of business, industry, and labor leaders should be required in the national and state advisory processes.
5. The Projects with Industry Program should be expanded to allow agreements with labor and trade unions as well as individual employers and the designated state unit.
6. The Act should promote the concept that long-range vocational goals for individuals with disabilities should be targeted at careers rather than jobs, whenever possible.
7. The Act should require that persons with disabilities be placed in the most integrated employment setting possible.
8. A comprehensive review of all Federal legislation that authorizes services to or protects the rights of individuals with disabilities should be undertaken to identify and eliminate requirements that are contradictory, unclear, insufficiently comprehensive or redundant.
9. To encourage interagency coordination of services for people with disabilities, the Act should encourage the referral of persons determined ineligible for vocational rehabilitation services to other appropriate programs.
10. The Act should place greater emphasis on Federal and state interagency activities and cooperation, including joint development of state plans wherever appropriate.
11. The information required to determine eligibility should be limited to that which is absolutely necessary and vocational in nature. The Act should require reliance on existing documentation and other evidence rather than on the purchase of new diagnostic information that duplicates existing reports.
12. The Federal funding formula for the vocational rehabilitation program should be changed to allocate funds based on the number of people who need services and the severity of their disabilities.
13. The Federal share of the cost of vocational rehabilitation services should be restored and maintained at sufficient levels to support innovations and program expansion that are necessary as new populations and program needs are identified.

V. WORKING STUDENTS AND LABOR LAWS

Acquainting students with the world of work and preparing them to make the transition from school to a job are critical tasks for the secondary school, particularly in its support for students who are at risk or disabled. We must make a concerted effort to ensure the quality of the work experiences provided to youth who need them. Even before that, however, we must seek fundamental changes in laws and regulations that preclude programs that are flexible enough to meet varying needs. We now are limited by:

- Regulations governing work experience and career exploration programs for 14- and 15-year-olds. These inhibit or preclude alternative activities with potential benefit for students who are disabled or dysfunctional. Certain aspects of the United States Department of Labor (USDOL) Work Experience and Career Exploration Program (WECEP) and provisions for workers with disabilities are particular concerns.
- The lack of regulations regarding the number of hours and the times that 16- and 17-year-old students can work while school is in session. The lack of standards means that many young people are more involved with work than they are with school, and that those who work many or late hours have difficulty functioning academically.

In this section, we will briefly review these problems and make recommendations to help solve them.

School-based Work Experience Programs

Schools provide work experience and career exploration programs for 14- and 15-year-old students to enable them to:

- Explore one or more occupational areas; identify occupationally relevant skills, the education and training required to obtain those skills, and the conditions under which work is performed; and, determine any personal interest in pursuing employment in those areas;
- Understand the connection between education and work by being able to identify skills used in the work experience and in occupational areas of student interest that are, or can be, learned in school;
- Identify and demonstrate employability behaviors and skills and demonstrate comprehension of their importance in relation to the student's work experience and work in general; and
- Demonstrate occupational skills that result in attainment and retention of entry-level jobs.

Schools offer such programs under the WECEP provisions of the Child Labor Regulations. In WECEP, students may be released from school to work up to 3 hours daily during and/or after school for no more than 23 hours a week. They must be given instruction related to their work and have training plans.

In addition, the Fair Labor Standards Act (FLSA) mandates that students in school-based programs must be paid minimum wage, except in certain very circumscribed situations. For example, students with mental retardation can be employed at no wage if certain conditions are met, such as establishing a clear relationship with the person's school curriculum. The USDOL sets the standards for such allowances, rather than the education system, which certainly is better situated to determine the impact of the work on a student's instructional program and school performance. The FLSA requirements are just so much more "red tape" preventing educators from planning relevant individualized programs.

The model implied by these laws and regulations treats students as alike in their needs and, therefore, able to benefit from a single form of programming. In it, the school finds minimum-wage jobs for students, works with employers and students to develop training plans, provides related instruction, and strives to ensure adherence to work-hour rules. However, the development of more flexible programs is inhibited.

First, the model does not account for contemporary career exploration. No provision is made for students to be in a school-based program where he or she would shadow a person to find out what a job is like. Similarly, there is no apparent provision for work paying below minimum wage, and for students to rotate through several jobs in a year, spending a number of weeks in each. It also precludes participation in programs that are similar to college internship programs in which they may or may not be paid minimum wage.

Second, many youth who need work experience are not ready to participate in a way that makes it economically feasible for employers to pay them the minimum wage. A number of WECEP students are at risk and have been dysfunctional in a regular school setting. As such, they have not developed behaviors that make them minimally employable. Employers willing to accept these students must extend themselves far beyond what they would with someone else. Such students are not initially as productive as other workers and may not become so for some time. In addition, employers must spend considerable time supervising them so they gradually develop suitable behaviors.

Third, as mentioned, WECEP allows students to work no more than 3 hours a day or 23 hours a week when school is in session. A school that finds it more desirable to have them work for an entire week and then attend class exclusively for the following week cannot program this way. The basic USDOL philosophy of work occurring on a week-to-week schedule conflicts with the semester or term structure of education.

Finally, in a related matter, some at-risk youth who could benefit from WECEP come from families receiving public assistance. The income of full-time students who work part-time in school-based programs is exempt in the calculation of benefits to be received by the family. But it is not exempt after six months of employment from the Gross Income Test that determines assistance eligibility. So, students may be dissuaded from WECEP participation because of its potential affect on their family's support.

Discretionary Work and the Negative Impact on Schooling

Current Federal law prevents 14- and 15-year-old students who are not in school-based work experience programs from working more than 18 hours per week and 3 hours per day, when school is in session. They also are not allowed to work in various occupations that are considered dangerous. 16- and 17-year-old students are subject only to the latter restriction.

The New York State Education Department recently studied part-time employment of high school juniors, most of whom were 16- or 17-years-old. They found significant negative effects associated with students working 25 or more hours per week. Studies done by researchers in other states have found detrimental impact on students working even fewer hours.

The New York study indicated that about one quarter of working students spend 25 or more hours per week on the job. These youth have the poorest grades, the most absences from school, and do the least homework. They are more likely to take fewer and easier courses in order to work and are the least likely to obtain a Regents diploma. The study also found that tobacco, alcohol, and drug use was greatest among students who worked the most.

In general, the long hours worked by students do not appear to relate to economic need. Few students contributed to family food and housing expenses. When they did contribute, the amount was small relative to total earnings in almost all cases. Most earnings are spent on entertainment, clothes, cars, and food outside the home.

In New York State and nationally, there is tremendous concern about increasing the performance of secondary school students. Increasing performance means more than improving student grades. It also requires that students become more competent by taking more mathematics, science, and foreign language courses or courses in which the fundamental disciplines underlying the subject matter are taught as well as the particular operations. The New York State and similar research clearly shows that students who work long hours are less involved with this more rigorous course work.

Recommendations

1. The ultimate goal in examining the circumstances of student workers should be development of a single, comprehensive set of laws and regulations that address the issues affecting their employment. In doing so, we must maximize flexible educational programming by permitting local educators to make decisions regarding work and students, including granting waivers for students to work for little or no pay if part of a bona fide education activity.

2. Current requirements associated with FLSA waivers for payment of subminimum wages in specified circumstances must be reduced to allow schools to do their job in planning individualized programs for students with special needs. Educators and labor department personnel should be given a legislative mandate to work out the conditions under which it would be appropriate for students to receive different kinds of remuneration.

3. Career exploration needs to be more broadly defined and applied in the context of WECEP. The relevant legal and regulatory provisions should be changed to allow unpaid or minimally paid experiences that enable a student to explore careers through shadowing, job rotation, and internships.

4. The provisions specifying the number of daily and weekly hours a WECEP student can work need to be changed to allow for greater programming flexibility. This might be done by defining the total number of hours in a semester that he or she can work. The school would then be able to tailor programs to individual need. The provision that bans work before 7 a.m. or after 7 p.m. should be retained for 14- and 15-year olds.

5. To ensure that earnings do not preclude a young person from participating in WECEP because of its potential affect on public assistance eligibility, legislation is needed that exempts earnings in a school-based program from being included as part of the Gross Income Test.

6. Legislation should be enacted to restrict the number of hours and times that 16- and 17-year-old students can work while school is in session. They should be allowed to work no later than 10 p.m. on any day preceding a school day. Within this legislation, greater flexibil-

ity should be permitted when students are part of a school-based work program that incorporates the same kind of criteria as WECEP.

However, we also must be very wary of building enough flexibility into such changes to accommodate the needs of students in special situations. For example, there are an increasing number of young people who are out on their own without access to parents or guardians. These students may need a combined work and study schedule more than most. With this condition in mind, three particular changes are recommended:

- Where the primary responsibility for issuing employment certificates for students under age 18 rests with the schools, the state education agency should require school districts to review students' records prior to issuing certificates to determine if they are making satisfactory academic progress and if the courses being taken reflect their level of ability.
- Students should be required to attend a three-hour class related to working part-time while going to school. The course should be based on a syllabus that will cover the laws on employment of youth under age 18, the benefits and problems associated with part-time work while going to high school, and the preparation of a weekly activity schedule by the student. Prior to an employment certificate being issued, the parents or guardian of the student should be required to review the schedule and sign it.
- Employment certificates should be made renewable at six-month intervals, with schools required to review students' records, and with students required to update the schedule prepared for the previous six months and obtain the requisite parent or guardian signature. As now, the school should be able to deny a certificate when it is not in the student's best interest.

8. Further support for the proposed legislative and regulatory changes should be provided by having the U.S. Departments of Education and Labor prepare information for parents on part-time employment for high schoolers. This should include a text and explanation of the law and suggestions on how to ensure that their children will benefit from the experience.

9. As part of their inspection visits, the USDOL should assist schools in identifying work sites that would be appropriate for students who are disabled or dysfunctional.

VI. FEDERAL TAX INCENTIVES TO PROMOTE EDUCATION, JOB DEVELOPMENT, AND CULTURAL AWARENESS

According to the Congressional Joint Committee on Taxation, the Federal government will forego collection of approximately $318 billion in tax revenue from individuals and corporations in fiscal year 1991 as a result of allowing tax expenditures for certain taxpayers. Tax expenditures are similar to direct government spending programs in that they result in a loss of funds to the United States Treasury. To recipients, however, they are more advantageous than spending programs because the benefit is received as long as the criteria set in law is met. In addition, tax expenditures are not subject to the annual appropriation process.

Tax expenditures are Federal incentives to encourage individuals and corporations to engage in certain behaviors or practices that are considered to be in the best interests of the nation and the economy. Probably the most known example is the home mortgage interest deduction, first incorporated in the tax code to encourage home ownership and currently worth $32 billion to taxpayers in annual individual deductions. Tax expenditures can take the form of deductions, credits, exclusions, preferential tax rates, or deferrals of tax liability.

The current tax code contains several tax expenditures that benefit education and cultural activities. The Regents support continuation of many of the current expenditures but also believe that additional incentives are needed to encourage more investment in those areas.

In this section, we discuss current expenditures supported by the Regents, and those we recommend for enactment.

Business-related Tax Expenditures

Employee Educational Assistance. Section 127 of the Internal Revenue Code allows employers to provide up to $5,250 per year in tax-free educational assistance to employees for undergraduate and graduate tuition, books, and fees.

This provision is the only means by which many employees can afford to combine work and school; especially new workers or those at the bottom of the career ladder who need education or training to qualify for advancement. Alternatively, employee educational assistance benefits employers by allowing for retraining or upgrading employee skills and thereby helping to enhance productivity and employee morale.

Recent studies show that employee educational benefits typically accrue to lower paid people who are most in need of assistance, and will benefit most in terms of upward mobility. U.S. Department of Education data show that 99 percent of assistance recipients earn less than $50,000 annually, and 71 percent earn less than $30,000, with the average payment between $400 and $1000.

Although Section 127 has provided the intended incentive — encouraging partnerships between employers and employees for the latter to pursue higher education to improve job skills — it has nearly expired several times in recent years. The provision is routinely extended for only one year as part of the annual budget reconciliation bill, creating uncertainty for the affected parties.

The Regents believe Section 127 has proven its worth. We support the efforts of Senator Moynihan and others to make the provision permanent.

We also propose that Section 127 be expanded to include employer support of high school equivalency and continuing education for employees, particularly those in blue-collar jobs. As noted in the Literacy Improvement section of this document, people other than supervisors, managers, and professionals are very low on the priority list for employer-supported education and training. Less than 10 percent of business expenditures for training goes to this group, a situation that must be remedied to ensure our national economic viability.

Research and Experimentation Tax Credit. A tax expenditure that indirectly benefits education is the research and experimentation credit, which was extended by the 1990 Reconciliation Act through fiscal year 1991. First available in 1981, a 20 percent credit (over a base amount) is allowed against Federal income taxes for the amount a business spends on qualified research and development in a given year.

The credit is designed to provide business and industry with an incentive to participate in research and experimentation that may benefit both the firm and society, but that may not otherwise be investigated by the firm. Without tax support, some firms may be unwilling to invest the capital needed to conduct specific research or unable to convince outside investors to support the project.

Higher education institutions are often indirect beneficiaries of the provision when private firms contract with them to conduct the research and experimentation. The current law, however, does not allow payment of a tax credit for any research in "the social sciences, arts, or humanities," thereby excluding education, training, and related research and development.

The Regents strongly support the permanent extension of the tax credit as an effective way of promoting research and experimentation. We also believe that the definition of "qualified research" should be expanded to include education and related fields that seek to increase the learning, retention, and transfer of knowledge by at-

risk individuals and the productivity of our education and training system. With the great need for research in a myriad of problem areas and the seeming willingness of business to participate in education-related activities, such a change seems critical.

Proposed Targeted Education and Training Equipment Tax Credit. In addition to expanding the research and experimentation tax credit, the Regents propose a Targeted Education and Training Equipment Tax Credit to spur business and industry investment in education and training technology to increase worker productivity.

Private industry would receive the tax credit for a portion of the costs of technology and equipment purchases that were made available for use by public schools in an approved education program, while also used for the company's own purposes. The primary benefit of such credit would be to encourage business and industry and schools or educational institutions to jointly plan and implement programs, such as workplace literacy, school-to-work transitions, and vocational training, which would serve both current and prospective employees. (For a related discussion, see the section of this document on Education Capitalization.)

Examples of the kinds of technological investments that could be supported through tax credits include computer-aided basic skills training or vocational training that includes robotics and other high technology applications. The technology or equipment purchased by industry would have to meet several criteria before the tax credit could be awarded:

- The credit could apply only to newly purchased equipment used for a specific purpose in partnership with an educational agency or institution, not for existing inventories or for equipment that has been, or planned to be, discontinued.
- The credit would only be available for programs that directly serve at-risk students, including adult education or vocational program enrollees in a public school system or institution of higher education, in an organized education program approved by the state education agency or state accrediting body.
- The equipment could be located at the business site or in the school or institution, as long as the location is convenient and accessible to both parties.
- The program must be guaranteed to operate for at least three years after purchase of the equipment and use of the credit.

Job Development Tax Expenditures

Targeted Jobs Tax Credit (TJTC). Employers currently are allowed to claim a tax credit for qualified wages paid to individuals certified as members of various targeted groups, including low-income youths. Employers may claim a credit of 40 percent of the first $6,000 paid during the first year of employment, for employees hired for at least 90 days or 120 hours. The provision was also extended through fiscal year 1991.

The TJTC's goal is to promote private sector employment of persons from a wide range of disadvantaged groups, including cooperative education students, other youth, veterans, vocational rehabilitation referrals, persons receiving public assistance, and ex-offenders. The United States Department of Labor has reported that the credit has been used in over half of the cases by employers hiring economically disadvantaged youth. Vocational rehabilitation referrals account for only ten percent of the credits claimed.

The Regents support the TJTC because it provides employers with an incentive to hire economically disadvantaged youth and others who may not otherwise be considered as a priority for hiring. It also is a cost-effective way to enhance at-risk youth employment, rather than establishing a direct spending program.

Since the credit was first enacted in 1978, Congress has acted to tighten the requirements for its use, to avoid abuse claims and to make the program more effective for those most in need of employment services. Congress has closed loopholes, for example, to eliminate retroactive claims and to ensure that only economically disadvantaged youth are hired in jobs where credits are used. As a result, both independent and private studies have found that the TJTC is a cost-effective mechanism to spur private sector hiring of individuals in the targeted groups. The Congressional Budget Office has found the credit to be more cost effective than other direct spending public employment programs.

The Regents urge Congress to extend permanently the provision, to provide a sense of continuity to employers who claim the credit. We also advocate enhancement of the credit for specific disadvantaged groups, such as vocational rehabilitation referrals, who have not been well served by the credit to date. Congress should expand the size of the credit temporarily for employers who hire people with disabilities. This would be a good way to expose employers to the productivity an employee with disabilities brings to the workplace.

Higher Education Tax Expenditures

College Savings Plans. As part of 1988 tax amendments, Congress enacted a new Education Savings Bond program, which became available to taxpayers for the first time in 1990. The provision allows a taxpayer or spouse (as long as the buyer is at least 24 years old) to purchase United States Series EE Savings Bonds and

not pay Federal income tax on the interest earned if the bonds are used to pay for higher education for the taxpayer, spouse, or dependents.

The program is designed to provide an incentive for low- and middle-income taxpayers to begin saving for future education costs. The interest exclusion is phased out for married taxpayers with income above $90,000 and for single taxpayers above $55,000.

Although it is too early to gauge the impact of this new saving incentive, many people in the education community have urged its expansion. Education Savings Bonds are not currently available to family members who wish to help save for a nephew's or granddaughter's later education needs. In addition, middle-income taxpayers who begin saving may find they are ineligible for the interest exclusion in future years as their income grows. Congress should closely examine implementation of this program with a view toward its expansion.

President Bush also has proposed Family Savings Accounts (FSA), a federally subsidized college savings plan that is loosely modeled on the Individual Retirement Account (IRA) program. The proposal would allow married taxpayers with income under $120,000 and single taxpayers with income under $60,000 to make contributions to an FSA, with no tax imposed on the contribution or the interest earned, if the contribution is held in the account for at least seven years.

The Regents urge Congress to consider this and other incentives for savings suggested by a number of states and postsecondary institutions. As Federal funds for student aid and other postsecondary education programs fail to meet the needs of all students, Congress is obliged to look at innovative ideas, such as savings plans, to help ensure that no student is prevented from obtaining higher education for financial reasons.

Interest Deductions on Student Loans. To discourage reliance on credit spending and to promote savings, the 1986 Tax Reform Act phased out consumer tax deductions on most interest expenses, including deductions for interest on educational loans.

While the overall goals of the provision are laudable, the inclusion of student loan interest is bad public policy and runs counter to other Federal efforts to promote higher education. Student loan interest should not be included because education loans are investments in an individual and in our future national economic power, not a discretionary consumer spending item. Also, as Federal grants and other student aid have dwindled in recent years, reliance on loans has increased dramatically. Now, nearly 30 percent of all postsecondary students take out loans each year, and loans comprise 50 percent of all aid funds awarded in the United States.

Eliminating the interest deduction for loans exacerbates this increasing reliance on loans, especially for students who are independent or whose families cannot contribute financially to their education. Further increases in an already high debt burden may discourage prospective students, especially those who are economically disadvantaged, from pursuing higher education.

Finally, eliminating the interest deduction serves to discourage students from entering the higher cost education programs, such as the health professions field, where shortages of students are growing. Conversely, students graduating from degree programs with a significant debt burden may be less willing to enter lower-paying public service and teaching professions, where shortages are also acute.

Bills were introduced in the 101st Congress to restore the student loan interest deduction. The next Congress must act affirmatively on this issue.

Taxation of Student Aid. The Tax Reform Act of 1986 changed the tax status of grants, scholarships, fellowships, and stipends. Since 1986, the portion of those awards used for expenses other than tuition and course-related expenses has been subject to Federal personal income tax.

The purchasing power of grant aid for low-income students has been declining nationwide since the early 1980s because grant amounts have not kept pace with rising costs of attendance. This erosion of purchasing power should not be compounded by Federal taxes on grant aid for nontuition expenses.

Similarly, Federal support for graduate education has been inadequate. Graduate students, whose awards are designed to cover living expenses, have been particularly hard hit by the taxes imposed on their stipends. Tax policy should not discourage graduate education at a time when the nation is facing severe shortages of personnel with advanced degrees in many academic disciplines.

The next Congress should amend the tax code to permit the full value of scholarships and fellowships to be excluded from income.

Tax Expenditures for Educational and Cultural Activities

Unrelated Business Income Tax (UBIT). Since 1913, nonprofit and charitable entities have been exempted from taxation on related commercial activities. Museums and other cultural institutions have become particularly dependent on the exemption. For example, the American Museum of Natural History in New York City derived $22 million from earned income against its current $38 million operating budget. As is apparent, the original motive for the provision was to

allow such organizations and institutions to further their missions and to better serve their clients.

In recent times, the exemption has become even more important to such institutions as other government assistance has been cut or eliminated. At the same time, charitable donations to the nonprofit organizations have slowed because Federal tax law changes have dampened individual and corporate incentive for giving.

Nonprofit organizations, in turn, have expanded commercial activities related to their primary function to help close the gap created by the loss of funding from other sources. The increased activity has prompted criticism from the private sector, which claims that nonprofit groups enjoy an unfair competitive advantage because of their tax exemption from certain commercial enterprises. The House Ways and Means Committee has held hearings over the past two years to determine legitimacy of the concerns.

While the Regents are sympathetic to the complaints of the for-profit, private sector, we believe that nonprofit, tax-exempt institutions and organizations play a vital role in our society's growth, development, education, and cultural understanding and that this tax exemption must be retained. The value of these entities to society, offering services that government and the private sector cannot or will not provide, justifies the tax treatment they receive. This is especially true in light of Federal cutbacks in direct spending programs that have occurred over the past decade.

Charitable Contributions. Postsecondary institutions, museums, libraries, and other cultural and educational organizations rely heavily on taxpayers' charitable contributions to help support the services that are not otherwise provided by governmental or private programs.

The 1986 Tax Reform Act limited incentives to make charitable contributions by eliminating the deduction on donations by taxpayers who do not itemize on their tax returns. Because the 1986 Act simplified the tax code, the number of nonitemizers using the "short form" jumped to 70 percent of taxpayers. It is estimated that 72 million nonitemizers make annual charitable donations. According to the nonprofit group, Independent Sector, these low- and middle-income taxpayers give, as a percentage of their income, nearly twice the amount of wealthy givers yet they are denied the opportunity to deduct the contributions.

In effect, the current provision discourages low- and middle-income taxpayers from contributing and makes the cost of donating greater to them than to the wealthy. Legislation was introduced during the 101st Congress to restore the charitable deduction for nonitemizers, but no action was taken.

The Regents believe charitable contributions are critical to educational and cultural institutions, and the ability to deduct donations on one's taxes is an issue of fairness among taxpayers. We urge the 102nd Congress to reinstate the nonitemizer deduction.

Gifts of Appreciated Property. Another provision of the 1986 Tax Reform Act discouraged charitable donations to cultural and educational institutions to a greater extent than eliminating the nonitemizer charitable deduction. People donating gifts of appreciated property, such as a work of art that has increased in value since its original purchase, were generally subjected to an alternative minimum tax, which allowed that only the original cost of the gift may be deducted, rather than the appreciated value.

Recent studies have shown that the 1986 provision has seriously eroded the giving of such gifts to universities, museums, hospitals, and others by as much as 42 percent since before 1986. Data collected from over 1,000 higher education institutions by the Council on Aid to Education found that gifts to higher education for capital purposes, in the form of appreciated property, declined by nearly 17 percent in 1988 from prior year levels.

Congress took the first step in repealing the provision in the 1990 Budget Act, by exempting gifts of appreciated "tangible personal property" from the tax. The Regents urge the 102nd Congress to exempt all gifts of appreciated property, so that real estate and other non-"tangible personal property" may be donated to tax-exempt entities and deducted at their full market value.

Recommendations

1. Section 127 of the tax code, which facilitates employee educational assistance for undergraduate and graduate education, has proven its effectiveness and should be made a permanent part of the tax code. In addition, the Regents urge extension of the benefit to support blue-collar worker participation in high school equivalency and continuing education programs.

2. There is great need in these times of education reform to do much more education research and development. The Regents urge the permanent extension of the research and experimentation tax credit, with an expanded definition of "qualified research" to include research in education, training, and related fields.

3. A Targeted Education and Training Equipment Tax Credit should be enacted to provide more incentive for business and industry to invest in education and training technology to increase worker productivity.

4. Congress should permanently extend the Targeted Jobs Tax Credit to provide a sense of continuity to employers who claim the credit and the disadvantaged

and disabled people for whom it provides employment. The credit also must be refocused to try and reach groups that have been underrepresented in its coverage, especially to promote employment of people with disabilities.

5. Congress must carefully monitor implementation of the new Education Savings Bond program to gauge its impact in helping taxpayers save for future postsecondary education expenses. Due consideration also must be given to the President's Family Savings Accounts and other proposals that have this same goal.

6. Education loans are investments in an individual and in our future national economic power, not a discretionary consumer spending item. The Regents urge Congress to restore previous law by allowing student deductions for interest paid on student loans. The lack of such deduction only serves to exacerbate the increasing student reliance on loans and discourage them from entering high-cost education programs and low-paying but altruistic careers. The next Congress also should amend the tax code to permit the full value of scholarships and fellowships to be excluded from income.

7. The Regents urge Congress to maintain the current Unrelated Business Income Tax exemption for nonprofit and charitable organizations engaging in related commercial activities.

8. Charitable contribution deductions should be restored for nonitemizers and those who donate any gifts of appreciated property. Current law serves as a disincentive for giving to cultural and educational institutions during a period of decreased government funding for such organizations.

VII. LITERACY IMPROVEMENT

The Regents have consistently advocated enhanced Federal support to help improve the literacy levels of our general population for economic and social reasons. Our proposals generally have sought to link literacy activities in the home, school, workplace, and in prisons to ensure a comprehensive approach. An overriding concern has been that a parent's literacy level should be maintained or improved to always exceed that of the child through secondary education.

We are pleased to see the recent gains made in developing and implementing programs to achieve these ends, including the:

- Adult Education Act expansion, including incorporation of workplace literacy provisions;
- Even Start program, which links basic education activities for parents with their children's early childhood education programs to instruct parents while assisting them to become the child's first teacher.
- Family-School Partnerships program, which encourages local education agencies to increase the involvement of families in their children's education through grants used primarily to train teachers, other school personnel, and families in building effective family-school partnerships.
- Job Opportunities and Basic Skills Training (JOBS), which was created under the Family Support Act of 1988 and mandates that states provide a comprehensive education and training system for certain public assistance recipients to help them become self-sufficient.

Despite these gains, we still have considerable concerns about the literacy problems facing many segments of our population.

Literacy Legislation Pending in Congress

We are dismayed that literacy legislation was not enacted by the 101st Congress. The package that was agreed upon by the Administration and congressional leadership was a needed step in the direction of enhancing literacy improvement efforts. We support the reintroduction of key provisions and passage early in the Congress. Particularly attractive provisions would:

- create an Interagency Task Force on Literacy to coordinate and review programs. We especially must link programs that target literacy activities in the home, school, and workplace;
- expand and improve existing literacy projects under the Adult Education, Even Start, and Workplace Literacy Acts in the U.S. Department of Education;
- create regional and state resource centers to improve literacy research and information collection and dissemination; and
- establish a Family Literacy Public Broadcasting Program to produce and disseminate family literacy programming.

Adult Education Act (AEA)

The AEA has served since 1965 as the Federal government's principal program for assisting adults to gain basic literacy skills. Like remedial efforts at the other end of the school-age spectrum, the AEA has not had the policy direction or resources to bridge the literacy gains of the adult and the growing educational needs of the child at home. We still need to develop stronger, more comprehensive linkages as one way to break the generational cycle of low literacy.

Workplace Literacy

While we must ensure that new workers enter employment with optimal literacy skills, we also must establish a system centered in states that maintains and improves skills of current employees. This is a particularly overlooked aspect of the literacy shortfall. On the one hand, we have an employer training process that virtually ignores the mass of workers below white-collar level. On the other, we have a rapidly changing workplace clashing with the phenomena of "skills decay" -an erosion, over time, of the knowledge and skills once acquired in an educational setting.

Training of Lower Level Workers. A recent joint report by the American Society for Training and Development and the U.S. Department of Labor notes that our education structure, including that in the work place, emphasizes the learning of white-collar and higher-level technical subjects, not noncollege and craft work. As a result, our institutional work structures are dominated by managers, senior technicians, and other white-collar workers and their high-technology orientation. So, while we do well in early phases of product development, which feature more technology, we have not similarly developed our nonsupervisory skilled and unskilled workers and, accordingly, suffer in the later stages of mass production and distribution. Thus, we foster an environment where we developed video cassette

recorder technology, but have left production nearly entirely up to other countries.

The situation is aptly illustrated by a June 26, 1989 U.S. News and World Report article, "The Forgotten Half." In it, Xerox CEO David Kearns, described as an education advocate, wants a "world-class work force, from senior scientists to stockroom clerks," but is noted as preferring to have the expense of training disadvantaged workers borne by others. The article describes the elaborate Xerox management, sales, and technical training facility, but notes the lack of remedial courses and the fact that Xerox provides no formal training for clerical and unskilled personnel.

Skills Decay. All workers experience "skills decay." As the employer modernizes, expands production, or otherwise revises activities, the employee finds that some previous learning has been forgotten through disuse and now must be relearned. Although managers continually receive new training and refresher courses, a line worker is seldom afforded similar opportunities.

Our Need to Refocus Training Programs. Refresher programs must emphasize basic skills *and* functional and technical skills that are needed in the workplace, including computer literacy and skills in problem solving, decision making, human relations, and interpersonal and written communications. People who once could look forward to a lifelong career now must be prepared, or have access to preparation, for several jobs during a lifetime, each requiring different competencies. It is, therefore, important that any comprehensive effort to enhance literacy skills should include a component to refresh previously learned knowledge and skills of the line workers who can most benefit from such programs.

Programs to refresh skills contrast sharply with the traditional literacy programs for targeted groups, where the majority of attention and resources is focused on those individuals lacking the most rudimentary skills. To date, few, if any, Federal, state, or local programs begin to recognize the imbalance in our literacy campaign and redress the skills decay problem. Most simply emphasize populations without high school diplomas. We propose that many workers with diplomas have just as much need for such services because of the skills decay problem.

A program at the Arcade, New York Motorola Inc. plant is illustrative of the specific type of project that might be undertaken. Faced with changing manufacturing requirements, up to 400 employees were slated to lose their jobs. Instead, Motorola chose to avoid the layoffs by working with a local education agency (LEA) to instruct personnel in the basic mathematical skills needed to enable them to handle new manufacturing control procedures.

There was no differentiation made between those workers who had diplomas or relevant previous instruction and those who had none. The employees may have performed adequately in their jobs for a considerable time. As the number of manually-oriented jobs decreased, however, they were replaced by tasks requiring skills that had lain dormant in some workers since their school days. Recognizing economic reality, Motorola and the LEA integrated instructional activities that solved their problem.

Perhaps the existing program with the most potential for adaptation is the workplace literacy provision of the Adult Education Act. After its initial authorization in 1987, the program received a four-year authorization as part of the Hawkins-Stafford Elementary and Secondary School Improvement Amendments of 1988.

Approximately $9.5 million was first appropriated for the program in fiscal year 1988, with the funds distributed as discretionary grants by the Secretary of Education. While funding rose to $19.7 million for fiscal year 1990, unofficial estimates of the literacy problems of adult workers indicate that a nationwide effort closer to $500 million is needed. Indeed, during the first year of funding of the program, the U.S. Department of Education received 342 applications totalling a requested $83 million, nearly 10 times the amount available. The appropriation for fiscal year 1991 has been reduced to $19.3 million, a totally insufficient amount given national need.

To ensure proper attention to this problem, government officials, business leaders, and educators must acknowledge that this form of literacy problem exists and needs to be addressed through a comprehensive program. National, state, and local policies must emphasize knowledge and skills refreshment as being equally important as basic skills literacy instruction.

The philosophy at Motorola must be adopted by more employers who have large or small numbers of employees with similar needs. Due to shrinking tax bases, especially in distressed areas, and the general fiscal austerity of the times, the formal education system cannot be expected to remedy the problem of skills decay on its own; to provide sole training to the same individuals that it may have successfully instructed in the past. Business and industry must share the load. The problem must not be seen as a failure of the education system, but as a natural economic evolution as changing needs must be met with all available resources.

Government must help promote this program, whether it be through tax incentives or grants to smaller companies for planning and implementing such programs.

Research. An education-oriented research program is needed to study the ramifications of the literacy prob-

lem, including the retention of knowledge and skills and the means for incorporating results into everyday educational practice.

A review of the skills decay research generates an alarming awareness that there is a scarcity of any similar research or investigation of the problem by the civilian education community. A cursory examination of the ERIC database under subject headings related to skills decay and knowledge retention elicited five references, compared to an Army Research Institute/Boise State University survey of over 300 articles on the subject. There is an obvious need to build a closer interconnection among existing databases. The enhanced research structure mentioned above could help solve this problem.

One area for development is that of technology education stations located in the workplace. Stations would aid development of academic competencies specific to the business or industry through skill-building interactive software or other education-related technology and/or associated materials. The development of stations would be a joint venture of the businesses and LEAs.

Family and Community Literacy

Although it is critically important to focus on groups having literacy deficiencies, we also must continue to raise and refresh society's general literacy standard as our economy and our education system advances. Programs must focus on refreshing knowledge learned in school and providing additional learning opportunities in the areas of new knowledge. We must have opportunities to learn and understand the cultures of other individuals in our own communities and the nation. Our libraries, community and volunteer organizations, community colleges, and other education institutions should lead in improving community literacy through coordinated community literacy plans, programs, classes, and outreach efforts.

For example, public library services support preschool learning and encourage joint parent/child learning. Many adults seek literacy training because they want to help children learn and to share reading with them. Story hours are an important part of preschool experience for children and their parents. Toddler programs that bring very small children and their parents together to the library provide the basis for later, more independent use of libraries for continued learning. Cooperation among public libraries, day care centers, schools, and community organizations provides linkages needed for expanded parent literacy.

Parent education courses provided by community-based organizations and schools that teach young and first-time parents the basics of child rearing must always include a component on the importance of a good home learning environment. These parents should be encouraged, and given the opportunity, to enroll in adult education and high school equivalency classes to further this goal. Parent-sponsored groups such as parent-teacher associations and Boy and Girl Scout Clubs should provide outreach to their members and to other parents, stressing the importance of parent-child home learning. To the extent possible, schools and preschool programs such as Head Start should attempt to help parents understand the need for educational interaction at home.

A potential Federal means for coordinating literacy efforts within a community context is suggested by a recent policy determination relating to the Chapter 1 program. In it, computer equipment available to Chapter 1 children that is used on a less than full-time basis can be used for adult education classes in off hours. This melding of activities can extend the concept of the Even Start program through a Chapter 1 program of "keep-up," which serves children and parents simultaneously.

Literacy for Incarcerated People

One of the proposals that was left in limbo with the failure of the Congress to take final action on literacy activities was a program to expand literacy improvement opportunities for people in correctional facilities. This provision would have assisted each state correctional system and local jails and detention centers to implement functional literacy programs in all facilities with over 150 inmates. The inmates would be required to participate until they were released.

If we are to attempt to reduce recidivism rates, we must provide inmates with the tools they need to survive in mainstream society. Functional literacy is a fundamental way to help do this. With the Job Opportunity and Basic Skills program providing a precedent by requiring that certain public assistance recipients receive literacy training, we must seek to ensure that all inmates have the necessary basic skills to compete economically and function socially upon release. For example, sentencing could be expanded to require that convicted felons, including those high school graduates who may be at low literacy levels, must achieve a set standard of literacy upon release.

Community Awareness

Efforts to remedy the literacy deficiencies of specific segments of our society cannot be successful without the understanding, support, and involvement of entire communities. Individuals who lack education and literacy

skills are still stigmatized in schools and the workplace. It is important that there be community understanding so those seeking help are encouraged and assisted without loss of pride or position.

Project Literacy U.S. (PLUS), launched in 1986 by The American Broadcasting Company and Public Broadcasting System, is one good example of the effort needed to make people aware of the problem of low literacy by inviting them to get involved in programs to help others. By initiating a campaign to establish state and local PLUS programs, the national PLUS effort has made great strides towards educating the public about the problem while cultivating new resources to address it. Volunteerism is important to successful literacy programs. PLUS, New York's Literacy Volunteers of America, and programs established under Title VI of the Library Services and Construction Act can provide models for nationwide replication.

To stop the decline in literacy levels, we need greater efforts to develop community awareness about the problem. Alliances among schools, libraries, and community agencies that are fighting low literacy must be developed to coordinate and publicize existing efforts. This kind of community involvement and awareness can only help to reduce the stigma of those with low literacy levels and encourage them to seek help.

Recommendations

1. Federal, state, and local government leaders and educators must acknowledge that the skills decay form of literacy problem exists and needs to be addressed through a comprehensive program. Government policies must emphasize knowledge and skills refreshment as being equally important as basic skills literacy instruction. The reorientation of workplace literacy programs to include such populations is imperative, as is a commitment of significantly more resources.

2. Private sector managers also must recognize that they have a role to play in updating the knowledge and skills of all employees, not just managers and professionals and not just those lacking high school diplomas. The position taken by Motorola must be adopted by more employers with large or small numbers of employees with similar needs. These organizations must be given any necessary support by all levels of government in implementing related programs, including establishment of innovations such as technology education stations.

3. We must establish a strong research program to study literacy issues, including the long-term retention of knowledge and skills and the means for incorporating results into everyday educational practice. This must include development of a comprehensive knowledge base to tap potential information sources. The legislative mandate for the Department of Education to provide such service must be supported by sufficient resources for full implementation.

4. Congress should enact key provisions of the literacy legislation package, authored by Representative Sawyer and Senator Simon, which failed to pass at the end of the 101st Congress. Significant increases in authorizations and appropriations are needed for existing literacy programs. Specifically, the Workplace Literacy program should receive minimum funding of $50 million for state grants, and the library literacy programs under Title VI of the Library Services and Construction Act should be better funded.

5. The final literacy legislation must ensure coordination of activities, especially to link programs targeted to home, school, and work.

6. We must provide maximum opportunities for incarcerated people to achieve sufficient literacy so they may succeed economically and socially after release.

7. Community literacy and awareness programs, such as the Project Literacy U.S. campaign and Literacy Volunteers of America, should be funded, in part, by the Federal government. Community awareness literacy plans and programs should be coordinated among schools, libraries, and other public agencies. A significant Federal action to further this end would be to coordinate Chapter 1 and adult education programs to provide a comprehensive "keep-up" approach to literacy training for Chapter 1 families.

VIII. EDUCATION RESEARCH AND DEVELOPMENT

There has been a minimal Federal role in education research and development (R & D) over the years. A key problem is that the Congress and Administration lack mutual trust in setting R & D priorities. The conflict is rooted in the R & D model for the United States Department of Education: Congress authorizes and funds the research structure through the Office for Education Research and Improvement (OERI), but only indirectly suggests research objectives. The Administration's research agenda is advocated strongly, however, often counter to congressional intent. Funding levels generally have reflected this situation, albeit with marginal improvement in the last couple of years.

A 1988 General Accounting Office study found that, of the 13 Federal departments or agencies with the largest R & D functions, the Department of Education had the lowest fiscal year 1987 funding at $124 million in current dollars, a 33 percent drop in real dollars since 1980. The next lowest was the Veterans Administration with $210 million. Since 1987, OERI research and statistics funding has increased over 20 percent. While a positive and welcome advance, need still far outstrips dollars.

For example, as evidence of the commitment needed for any R & D, the Department of Defense dedicated $10 million over several years to R & D for the Job Skills Education Program (JSEP). JSEP is a computer program designed to instruct military personnel in academic skills needed to acquire job skills. In comparison, the Federal Departments of Education and Labor were only willing to spend about $750,000 to adapt JSEP to civilian use. This is just a single useful program. Juxtapose those comparative costs with the need for research into education reform activities, assessment, dropout prevention, capitalization, and other critical issues.

In this section, we propose an alternative research structure designed to alleviate the noted distrust. This new structure targets four critical areas that can be justified as Federal responsibilities because of their national scope and need for centralized direction: 1. a **national research program** to address specific issues of national concern and to include a national education cooperative extension; 2. a coordinated, comprehensive **national knowledge base**; 3. a system of educational **assessment and evaluation**; and, 4. a firm pattern of **technology transfer** between Federal agencies and the civilian education community.

National Research Program

A Major Project Approach. The distrust between the Congress and the Administration might be reduced by adopting a research structure similar to that used in other Federal agencies, where support and funding is done by major program area. That is, the Congress authorizes and provides multiyear appropriations for a Strategic Defense Initiative or AIDS research. Armed with the congressional imprimatur, the appropriate department develops and conducts a research program in that area through government laboratories and facilities, industrial contractors, higher education institutions, and nonprofit organizations. This approach significantly differs from the education R & D model.

An education major project approach would have the Department of Education, during the negotiated budget/appropriations process, propose research agendas in selected areas such as dropout prevention, early childhood education, teacher training, or education technology development. The Congress would then authorize and fund related individual research programs, which would be carried out through the structure proposed below.

Research Structure. The Department of Education and the Congress should establish and maintain a comprehensive research structure and program involving Federal, state, and local governments (with states coordinating efforts within their borders); nonprofit organizations; and, higher education institutions, including individual educators, scholars, and graduate students. A clearly defined structure would help assess need for specific research and facilitate ongoing technical assistance and nationwide dissemination of salient findings.

Advisory Councils. The first step in building this structure is to create apolitical national and state R & D advisory councils to set research goals and oversee projects. State education agencies (SEAs) would serve as council staff and help percolate research findings up and down the research chain.

Research Responsibilities. The Department of Defense divides research into four levels based on purpose and the entities best suited to complete the work. Similar categories can be used as a framework for an education research program. They can be explained best within the context of an education illustration:

1. *Basic Research*, which would define problems and result in formulation of a relevant knowledge base; e.g., investigation of the personal, physiological, psychological, and social ramifications of dropping out of school. This research must be federally based, where a centralized knowledge capability can provide wide access to relevant findings, but could be done by nonprofit organizations and/or higher education institutions.

2. *Exploratory Development*, which, continuing the dropout illustration, would use the knowledge base to develop and test alternative dropout prevention models, including research on curricula, support services, computerized and other instructional techniques, administrative structures, and testing methods. This category also would be federally focused because of the wider coordination and dissemination requirements and because outcomes would still be tentative for practical application.

3. *Advanced Development*, which would guide practical application of the most promising research findings to ensure that models are carefully and completely incorporated into a school or other institution with appropriate monitoring and evaluation. States have the centralized authority to consistently apply research models, monitor their implementation under varied conditions, provide technical assistance, evaluate outcomes, and transmit results and other pertinent information to Federal officials.

However, Federal funding for state research has suffered two limitations in recent years. First, with the Chapter 2 program consolidation and accompanying reduced funding, localities are very limited in discretionary funds for "extras" like R & D. They instead routinely use such money for general operating expenses; or they spread it so thinly among different programs that there is no critical mass for intensive effort in a specific activity.

Second, the funding process has been restructured into a flow-through system where money goes from the Federal government through states to localities. Thus, states cannot command sufficient resources for R & D that might aid programs statewide rather than just local small dollar trade-offs. Some localities may not receive enough money to make it worthwhile even to participate.

Title III of the Elementary and Secondary Education Act of 1965 established a grants program to states for supplementary educational centers and services. The purpose was to provide a locus of state funding for planning, development, and dissemination of "exemplary" programs as local models, an opportunity to support state R & D that should be pursued again.

To also help support state R & D, we propose a Federal Research and Technical Assistance Letter of Credit for them, at their discretion according to specific need, to purchase research services or technical assistance at any Federal education center or laboratory. The Letter would be similar to the commodity letter of credit used by some states in the child nutrition program.

4. *Engineering Development*, which can be characterized as "it works." A local education agency or other operating unit would be assisted to test and install models that have generated positive results. State National Diffusion Network offices would be helpful here, as would the cooperative extension service proposed next.

Cooperative Extension Activities. Tying all this together would be a national education cooperative extension service. Cooperative associations and similar agencies have helped solve problems in many fields. Perhaps the most known example is the Cooperative Extension Service (CES) flowing from the United States Department of Agriculture (USDA) through land-grant colleges.

The CES has its roots in the 1862 Morrill Act, which created land-grant colleges, and the 1887 Hatch Act, which started Federal aid to states for agricultural experiment stations at the colleges. The stations did significant research but the findings were not consistently put into practice. As a result, the CES was established in 1914 to provide a means for dissemination.

Funded cooperatively by Federal, state, and local government and administered by the land-grant colleges, with units in almost every county in the country, the CES continues its pivotal role in sponsoring educational programs for cooperatives and ensuring land-grant college research findings are presented to cooperatives, other CES members, and the public.

The CES carries out its responsibilities by: disseminating various forms of information about advances in a number of fields; developing experiential learning opportunities; demonstrating and maintaining new technologies and practices; and, training local volunteers for leadership roles. Belying its popular, rural-oriented image, one of its most recent emphases has been on the needs of at-risk youth. This has resulted in a number of model programs in such areas as substance abuse, parenting skills, child care, and the building of self-esteem.

Following in this cooperative mode, the California Educational Research Cooperative (CERC) was created as a partnership between participating county and local school districts and the School of Education at the University of California, Riverside. Its research and service priorities are set by a Research Planning Council composed of people from participating districts and the University. CERC is an R & D center, providing a forum for academics, including doctoral student fellows, and professionals to jointly investigate and act on pressing education problems. It has six main goals:

- practical support for school improvement;
- strategies for resolving instruction, management, policy, and planning issues facing public education;
- professional development opportunities for current and future school leaders;
- support for data-based decision making among school leaders;

- research, planning, and evaluation that is meaningfully interpreted and applied to school district problems; and
- data analysis to help build support for effective schools.

CERC completes studies and assists school districts in four core areas: strategic and operational planning, instructional program development and evaluation, school management and productivity improvement, and policy analysis and assessment.

We believe that a national education cooperative system similar to the CES and the CERC should be created. The U.S. Education Department would fill the USDA role in performing or arranging for basic research and exploratory development, helping set the national research agenda, and overseeing a system of research, development, and information and technology dissemination through SEAs. The SEAs, in turn, would contract with schools of education to perform a function similar to that of the land-grant colleges or the University of California at Riverside in coordinating, completing, and disseminating research.

National Knowledge Base

The Federal Department of Education should help develop a national education knowledge base, including a comprehensive set of standardized statistics, in an electronic format (e.g., national definition and measurement of "dropout").

New York's Student Information System could provide a model for this effort. It is a comprehensive, computer-based system that includes biographical, attendance, academic, course/scheduling, program participation, instructional management, and health/medical information. Authorized teachers and administrators can use it to identify and analyze academic and attendance trends. The system's general purpose is to improve the monitoring, decision-making, and policymaking capacities of State and local officials.

Not all this information may be necessary at the Federal level or for sharing among states or localities. However, the Federal government should:

- support states that have been developing information systems so that all school districts are included in networks;
- ensure creation of similar systems in states and territories to feed the most pertinent statistics to a central point; and
- help identify the statistics, defining them for consistency (e.g., What is a "dropout?") and determining alternative collection procedures. The 1958 National Defense Education Act authorized a program to improve state statistics services that should be revived on a large scale to meet today's needs.

In addition, the Omnibus Trade and Competitiveness Act of 1988 mandated the Department of Education to lead unification of the information data bases of the Educational Resources Information Center (ERIC), the Manpower and Training Research Information Service (MATRIS), the National Technical Information Service (NTIS), and others. While information clearinghouses exist for specific applications, the lack of a unified data base hampers identification and monitoring of research.

Assessment and Evaluation

The scarcity of good data on the condition and quality of education is exacerbated by the lack of a guiding Federal strategy for national and state assessment and the relative imbalance in funding for governmental statistical and research activities. Such a strategy is needed to enact a comprehensive, coordinated evaluation program starting with the individual student as a unit of analysis and proceeding through ascending levels of school, school district, state, and nation.

The United States Department of Education must help build an improved system of standardized assessment and evaluation. Teacher empowerment can only come when they and those who judge their work know what is happening with our students and schools.

To address some problems, the Hawkins-Stafford Elementary and Secondary School Improvement Amendments of 1988 outlined measures to improve the National Assessment of Educational Progress, which provides objective information about student performance to policymakers at all government levels. The new law also mandated the use of assessment sampling techniques that produce nationally, regionally, and state-representative data in reading, writing, mathematics, science, history, geography, and civics. Achievement data will be reported to facilitate state-by-state comparisons.

While the Regents support these provisions because only the Federal government has the centralized leadership and resource capacity necessary for such a task, we feel a larger scale approach is needed. The United States Department of Education must sponsor an assessment research program emanating from the Federal level to:

- investigate current assessment practices in education and other social science fields to identify strengths, weaknesses, and generalizable characteristics. This should include evaluation of current data bases, indicators, measurement instruments, and

assessment systems to gauge their capacity for accurately portraying school and student performance;

- develop an assessment strategy and model(s) that address the needs of three policy audiences: the polity, the professional, and, particularly, the parent;
- examine policy enactment instruments to determine their relative efficacy and social and economic costs in prompting effective implementation; and
- research how process variables (e.g., management structures, work procedures) are managed or manipulated to produce positive outcomes such as effective schools and teachers and socially and intellectually prepared graduates, compared to the less effective or outright failures. Attention to process helps distinguish theory failure from implementation failure. That is, if an intervention fails to produce a specific outcome according to a theory, it may result from a failure of the theory or a failure of how it was implemented. Either, of course, could have significantly different consequences.

In particular, more R & D is needed on predictive quantitative models to enable efficient use of educational data for decision making. This task must identify or develop the requisite models, information data bases, and testing and data collection systems. The design should facilitate the use of assessment results to formulate or change social policy; e.g., determine whether current education systems are equitable by ethnicity, origin, and gender.

Additionally, the Federal Department of Education must develop a more comprehensive method for collecting and disseminating information on innovative practices, indicators, and evaluation criteria; quantitative analysis models to aid decision making; effective methods for identifying, introducing, and evaluating assessment-based changes; and, uses of the latest assessment technology, including computer-adaptive testing. It also must help train and support states and others in giving technical assistance to implement and evaluate assessment procedures and results.

Technology Transfer

We believe that a key factor in our global competitiveness is the degree to which we use knowledge and technology already developed and implemented by other economic sectors. The Department of Defense (DOD), in particular, generates education and training software that has been adapted for civilian application and should be tapped further by the education system. Government agencies and education institutions must actively seek to promote such technology transfer.

The Potential in Transfer. The concept of training technology transfer between the military and education is not new. During World War II, the former perfected many technologies and instructional techniques that were adopted by the latter, including the overhead projector, simulation exercises, and foreign language laboratory training programs. More current developments such as microcomputers and interactive video discs have found their way from defense to industry and education. The DOD *Report to Congress on Education and Training Technology Transfer* outlines several products that might be useful to schools.

A recently initiated transfer involved a pilot project to test the adaptability of the Army-developed Job Skills Education Program (JSEP), a computer-assisted program to instruct soldiers in basic academic skills needed for work assignments. The program was converted for use in a local school district with civilian adults seeking vocational skills. The transfer was a success and will be replicated elsewhere. It exemplifies the benefit of spending of relatively small sums to adapt the results of millions of dollars of military research.

Transfer should not be limited to hardware/software applications. The military and its contractors frequently produce reports on topics relevant to the civilian education community. One recent example is an Army Research Institute/Boise State University report, *Training Procedures for Enhancing Reserve Component Learning, Retention and Transfer*, that recommends methods for training verbal and perceptual-motor skills.

The transfer of simple information such as bibliographic citations of these reports from sector to sector has significant gaps and reflects the transfer problem. For example, the Manpower and Training Research Information Systems (MATRIS) maintains a data base of abstracts of education and social science research conducted by the DOD. The Educational Resources Information Center (ERIC) performs a similar bibliographic and abstracting service for the education community. Relevant education citations can routinely be found in one and not the other. While this situation has been improving, the need to expedite creation of a comprehensive, consolidated data base of knowledge is critical for research, evaluation, and other purposes.

The Legislative Structure for Transfer. The Regents often have recommended that a well-planned program of direct transfer replace the current "trickle down" of technology. This process must occur in a sequacious manner so it is not perceived as diverting defense funds. A development effort is necessary to translate or adapt processes or products for schools and colleges. Federal legislation is evolving slowly in this direction, although great strides are yet to be made.

The Stevenson-Wydler Technology Innovation Act of

1980 recognized the importance of technology transfer by encouraging exchange of scientific and technical personnel among government, industrial, and academic institutions. It also stimulated use of federally initiated technology by state and local governments and the private sector. Recent reforms in patent law and policy also have strengthened transfer possibilities. Private sponsorship for proprietary product development, public/private research partnerships, and the government's ability to waive patent ownership rights (through the Bayh-Dole Act of 1980) all have increased incentives for both public and private sources to develop needed products. Transfers have been further strengthened with enactment of the Federal Technology Transfer Act of 1986, which more formally promotes military-university transfer programs.

Most recently, the Regents supported enactment of the 1988 Omnibus Trade and Competitiveness Act provisions that would establish an Office of Training Technology Transfer within the United States Department of Education. The Office would be a clearinghouse for federally developed education and training knowledge and technology available for transfer to state and local education agencies, among other entities. This provision would expand and formalize the technology transfer process and specifically define the education community's participation.

The trade legislation also authorizes regional technology transfer centers to be operated by a college or university, or a consortium of schools, to enhance transfer relevant to that region.

Both these activities must be put into operation with an adequate appropriation and other support. The return on such an investment should be significant, as noted above in the JSEP discussion.

Through these statutes, Federal agencies currently are required to transfer applicable technology to other sectors but the education community's involvement has been limited. The Federal government should seriously reconsider the comparative needs of the military, private industry, and education institutions and current systems for sharing training techniques, technologies, and curricula. Use of education institutions as cooperative links should be formally and definitively introduced. The training technology transfer concept, extended to include formal liaisons between the DOD and education institutions, should be mutually beneficial.

Recommendations

1. A major project approach similar to that used for the Departments of Defense and Health and Human Services should be adopted for education R & D.

2. The United States Department of Education and the Congress should establish and adequately support a comprehensive research program involving Federal, state, and local governments (with states coordinating efforts within their borders), nonprofit organizations, and higher education institutions (including individual educators, scholars, and graduate students). A clearly defined national and state structure would aid in assessing the need for specific research and facilitate ongoing technical assistance and nationwide dissemination of findings. A key component of this structure would be creation of a national education cooperative extension service.

3. The Federal government should support development of computerized data systems in states and territories that would feed pertinent statistics to a central point. They should help identify such statistics, defining them for consistency (e.g., What is a "dropout?"), and determining alternative collection procedures.

4. Congress should create a Federal Research and Technical Assistance Letter of Credit to be used by states to purchase research services or technical assistance at Federal education laboratories or centers.

5. The United States Department of Education should lead unification of the information contained in the existing data bases of the Educational Resources Information Center (ERIC), the Manpower and Training Research Information Service (MATRIS), the National Technical Information Service (NTIS), and others. This would help build a comprehensive knowledge base of education and technology and related research in one Federal agency. As noted, this effort also would be a means for technology transfer.

6. In addition to providing related information collection and dissemination and training and technical assistance support, the United States Department of Education should head an education assessment research program to:

- investigate assessment processes in education and other fields to ascertain strengths, weaknesses, and generalizable characteristics;
- develop a strategy to examine the state of assessment. Current systems must be evaluated as to their capacity for providing an accurate portrait of school and student performance. Evaluation must be framed within the context of addressing needs of the polity, professional, and parent;
- examine policy implementation instruments to determine their relative efficacy and social and economic costs in prompting effective implementation; and
- research the process by which inputs are managed within a school to produce positive or negative outcomes; i.e., how inputs are combined and implemented to produce effective teachers, school build-

ings, districts, and intellectually and socially prepared graduates. Being able to track process is critical to test new policy interventions.

7. The Regents continue to recommend that the "trickle down" of Federal technology to the civilian sector be replaced by a well-planned program of direct transfer to adapt processes or products for schools and colleges. Federal legislation is evolving in this direction and must continue to do so. Transfer provisions in the Omnibus Trade and Competitiveness Act of 1988 must be fully implemented with an adequate appropriation.

IX. INFORMATIONAL AND CULTURAL SERVICES: Archives, Public Broadcasting, Museums, and Libraries

The National Need for Information and Cultural Services

General Issues. Through history and across cultures, a major strategy to build social cohesion and civic responsibility was to provide public funding for strong cultural institutions. Among the most important institutions for New York State are museums, which express and interpret the history and culture of the society; libraries and archives, which provide access to society's accumulated knowledge and to the workings of government; and public radio and television, which assures educational, public affairs, and cultural programming in the public interest.

Education. The public library is still the first educational stop for many new immigrants and for parents beginning to educate toddlers. The first teacher, beyond parents, for children from many racial and ethnic backgrounds is television. If it is television like **Sesame Street** then children are already learning to understand and accept diversity even as they develop pride in themselves. For both children and adults in isolated urban or rural neighborhoods, libraries, museums, and public broadcasting may be the only means for learning about other cultures, the world, and even their own cultures.

Citizenship. A basic distinction between a free democratic society and other forms of government is that the former's citizens can examine and question the workings of government. Access to records and published documents through public records repositories and depository libraries is the key to exercising this right. Attempts to limit access always threaten this right, whether through imposing charges or limiting printing or distribution.

Censorship. Censorship has always been a political issue and a cultural concern. Libraries stand firmly for the right of an individual to read whatever published material is available. Museums are obliged to interpret all aspects of history and culture, even when unflattering or unpalatable to society. Public television and radio have similar responsibilities to inform and present differing perspectives.

Freedom of Expression. The ability to freely express one's self is a cherished right, no more deeply felt than by authors and artists. Efforts to restrict the role of libraries, museums, and public broadcasting in making the products of authors, scholars, filmmakers and artists available must be resisted at all levels of government. This past year has seen serious efforts by organized political action groups to impose their values through legislated censorship. The Congress must be vigilant against future censorship efforts.

Financial Support. Unless adequate support for these institutions is sustained, access may be limited or denied without the active work of censors. The Federal government must affirm its commitment to ensuring strong and relevant informational and cultural services that meet the broad range of public needs and interests, even as related institutions continue to press for state, local, and private support.

Illicit Antiquities and Stolen Art. The theft of art and traffic in illicit antiquities and art objects remains an international problem. This country should take the lead in stopping such practices by having the Federal Council on the Arts and Humanities take steps to codify and strengthen international conventions on the theft, export, or import of objects.

Archives and Records Issues. Sound archives and records management policies and procedures are needed in any organization, including government agencies, to ensure efficient internal operations, effective service delivery, and historical and cultural continuity. Archives — records with enduring value — must be identified, preserved, and accessible for research and education. But the lack of funding and national leadership is posing a significant barrier. Our nation's existing documentary heritage is at risk!

A variety of Federal policies and programs influence the work of government, private, and nonprofit archives and records management agencies and, thereby, the activities of educators, researchers, and citizens. They have substantial impact on the New York State Archives and Records Administration, affecting its ability to advise, assist, and regulate 3,800 local government units, state agencies, and more than 1,500 historical records repositories, and to directly administer the State government archives. Rapid changes in information technologies are particularly unsettling and require firm Federal policies and program directions.

Public Broadcasting Issues. Electronic broadcasting media are available, without charge beyond basic utility rates, in virtually every household in our country. Public broadcasting networks can be one of the most effective means for presenting educational, public interest, and cultural programming to people in urban and rural areas, from preschool children and at-risk youth to

the fixed-income elderly and homebound people with disabilities.

Financial Support. The importance of sustaining the integrity of commercial-free broadcasting has never been greater, especially as it has assumed increased instructional capacity. It is threatened by insufficient Federal support. In New York, where one station, WNET, produces 40 percent of all public television productions, inadequate funding is particularly onerous.

Instructional Video. As urban and rural school districts experience dropout rates that portend continuing personal and social tragedy, we should use this important resource as an alternative means of instruction. Frequent use of instructional video can ameliorate the attitude of some students that school is boring, can dramatize ideas and events, and can engage those for whom learning through more traditional means is unsuccessful.

Equipment. Poor students do not have nearly the same access to technology as their peers in other areas. Since many students are "visually oriented" learners, this lack is a real barrier to learning. Educational psychologists have known for some time that learning and retention are enhanced by addressing more than one sense in the instructional process.

Museum Issues. Museums serve as a national resource for the collection and preservation of objects, artifacts, and specimens, which they study, display, and interpret for the public. They help us all to understand and appreciate the arts, sciences, human history, and cultures that give context to our lives and the world.

Museums are a major educational *and* economic resource. For example, more than 30 million people visited New York's 1,440 museums and historical societies last year — a testimonial to the vital national resource that they represent to the State and nation. Their combined budgets exceed $200 million and they employ 15,000 people, 5,200 full-time.

Increasing Service Demands. Despite increasing costs and insufficient resources, museums are generally receiving more visitors to their exhibits, serving more students in their education programs, and facing steadily rising demands for the use of their facilities for concerts, meetings, and other educational and community activities. There is growing pressure for museums to carry on research programs, conserve collections, develop computer systems for data collection, organize more traveling exhibits, and extend services beyond museum walls. It is difficult to identify a significant museum activity that has not been strained and will not continue in strong demand.

Library Issues. The Federal government supports libraries because of their key role in national scholarship, research and development, productivity, and education. In New York, a partnership of Federal, State, and local agencies and organizations cooperate to deliver effective services. State Board of Regents policy requires that every resident should enjoy timely, free access to a full range of information resources provided through libraries within systems without restriction, censorship, or violation of privacy.

Networking. The hallmark of State library service is networking. Most of our 7,000 libraries are members of one of the 46 school, 22 public library, and 9 reference and research library systems that provide services to people of all ages. These systems, 10 major research libraries, and the regional medical libraries are linked to the New York State Library by telecommunications, computer, and data base systems and give users access to the total resources of the statewide library network.

White House Conference on Library and Information Services. The scheduled Conference should address public, academic, special, and school library, economic realities, and rapidly developing technologies. The Library Services and Construction Act (LSCA), which assists networking among all libraries, should continue to be expanded and coordinated with planning for a national research and information network and the administration of other related Federal activities such as programs supported by the Higher Education Act. States must help plan and administer such networks.

Telecommunications Rates. New computer technologies and telecommunications systems offer opportunities to computerize information resources sharing, improve rural library services, and solve the problem of disintegrating books, documents, and films. Although libraries now share resources this way, escalating costs resulting from divestiture and Federal Communications Commission decisions are threatening the ability of libraries to offer such benefits. Congress should provide preferential telecommunications rates to libraries, which depend on leased private lines to connect 650,000 library-located terminals to a few larger national, nonprofit bibliographic data bases.

Telecommunications Networks. A wide range of networks (e.g., CSNET, ARPANET, BITNET, EDUNET, and, of special interest to New York State, SUNYNET and NYSERNET) currently provide an economical means for rapid communication among members of the academic and research communities. But, with high start-up costs, Federal support for network development and maintenance would greatly aid the research effort described in the Education Research and Development section of this document.

Construction. Changes in service programs and information technology are creating demands that existing

library buildings cannot meet. Increases in LSCA Title II funding could help support the modification of many facilities to make them energy efficient and remove architectural barriers to enable full access to persons with disabilities. Title II money also helped libraries qualify for construction assistance under other Federal legislation.

Preservation of Research Materials. The deterioration of archival and library holdings is a national concern, and the LSCA has been expanded to support preservation activities. Also, following New York State's lead, Illinois, Maine, New Hampshire, and New Jersey have acted to encourage the systematic preservation of endangered resources. The problem, however, requires national action. Sufficient allocations must be made to the National Archives and the Library of Congress to meet their preservation needs and to help them provide nationwide technical assistance.

Federal Funding Programs for Information and Cultural Services

National Endowment for the Humanities (NEH). Through its Office of Public Programs, the NEH supports public broadcasting production, museum exhibits, library programs, and the maintenance of collections essential to scholars and the public. Its funding is extremely modest and has not kept pace with inflation or demonstrated national need.

The NEH Office of Preservation provides leadership and grants in conservation and preservation of materials. Recent funding increases here bode well for the success of a national strategy to prevent the rapid loss of our research base through deteriorating materials. The NEH programs also include funds for establishing national standards and policies and testing technologies.

An anticipated severe shortage in college teachers in the humanities will occur within the next decade. At the same time, the number of college graduates pursuing a doctorate in history, literature, languages, or philosophy has rapidly declined. A major increase in support of NEH programs can help ensure that the quality of our liberal arts institutions does not decline. Fellowships and challenge grants to allow institutions to establish endowed chairs in the humanities and similar programs are both necessary and too sparingly funded to have the needed impact.

National Endowment for the Arts (NEA). The recent controversy over fewer than 20 of the 85,000 grants awarded in the NEA's history has raised awareness nationally of the fragility and inadequacy of current support for the arts. This country provides many times less government funding for the arts than any of the other major industrial nations. According to *Art in America* (July 1990), West Germany spent $73 per person in 1989; France, $29; United Kingdom, $12; and the United States, $0.71.

This country's attention to art education is similarly backward. In Japan, for example, the arts are an integral part of every child's education from the earliest level, with a focus on the appreciation of aesthetic excellence in public and private arenas. If we lose our competitive edge because of the greater attractiveness of the design of European or Japanese goods, we may regret our lack of serious support for the arts.

For economic self-interest and improved quality of life, we must take seriously the role of the arts in fostering creativity, more attractive and livable environments, and a more civil society. The NEA's Arts In Education program deserves particular priority for helping to establish more systematic and productive arts program within schools.

National Science Foundation (NSF). The NSF supports many science research and education activities, including important projects such as the New York Geological and Biological Surveys. As issues of environmental degradation, loss of biodiversity, and depletion of natural resources become more urgent, the research work of these Surveys and other similar organizations provides basic information on which to base sound public policy.

The NSF program for Public Understanding of Science in part supports museum programs aimed at motivating student interest in science and technology. Increased use of collections and interactive exhibits to stimulate excitement and sustained exploration of science is an effective and accessible way to give direct contact with the natural world and to demonstrate scientific principles. *The Regents Action Plan to Improve Elementary and Secondary Education Results in New York* encourages integration of these museum resources into curricula, an effort that requires programs responsive to student needs. NSF programs should be fully supported to help in this effort, even in difficult fiscal times.

National Historical Publications and Records Commission (NHPRC). This Commission, chaired by the Archivist of the United States, provides vital leadership and modest financial aid to high priority projects throughout the nation. New York's educational, historical, and cultural institutions, students, and researchers have benefited significantly from the Commission's programs. For example, publication grants have enabled cultural and educational institutions to publish papers of prominent New Yorkers and thus increase their research use.

NHPRC records program grants have supported several important projects to address statewide historical

records priorities and have also aided individual repository projects ranging from the archives of the Julliard School and the City of New York to the collections of The Center for Puerto Rican Studies and Center for Migration Studies. In addition, during the past two years, the NHPRC has begun to provide much needed leadership and support to address electronic records issues, the most pressing archives and records problem nationwide. However, the Commission's staffing resources have not been adequate for the analysis and follow-up needed on this complex matter.

At its current appropriation level, the NHPRC is able to fund only a small number of worthy historical records proposals and cannot support the major actions needed to address the nationwide electronic records challenge.

Corporation for Public Broadcasting (CPB). The Federal government must reaffirm its strong support for community public television and radio by supporting and sustaining substantial funding for the CPB and the National Telecommunications and Information Agency (Public Telecommunications Facilities Program). It also must continue the forward-funding policy that ensures that the CPB and the public broadcasting community have a reasonable planning period and insulation from undue political interference. Support is needed to maintain services to outlying rural areas, encourage collaborative program purchases, help develop special adult learning programming, and assist postsecondary learning.

The first round of Star Schools projects illustrates the benefit of using technology in education. A combination of technologies is being used to bring educationally disadvantaged students in primarily rural areas into the same electronic classroom. Continued support is essential for this program.

Communications Technology. Innovative technologies used in public broadcasting offer an increasing number of viewers and listeners the opportunity to participate in the rapid evolution of ideas, facts, and resources that characterize this computer-paced age. This capability is especially important to individuals living in sparsely populated areas where pubic broadcasting is frequently the main link to broader educational and cultural activities. The public and commercial broadcasting communities are interested in the possibilities inherent in state-of-the art advances such as high definition television and fiber optic networks. Such services, along with new regulations regarding the use of the vertical blanking interval of the television signal and Subsidiary Communications Authorization (SCA) of FM stations, have opened up broad avenues of opportunity for such communities to seek the achievement of planned goals.

In 1990, the FCC recommended adoption of a must-carry agreement consistent with the recent agreement between the National Association for Public Television Stations and the National Cable Television Association in which cable companies will carry noncommercial television stations. This agreement is necessary to ensure continuing access of public television to the nation.

Program Production. The entire public television industry has warned of an imminent program production crisis. Unless Federal and state production funds are made available, the stream of quality television and radio programming, which a society of our wealth and sophistication needs, will evaporate.

Federal funding cutbacks for agencies such as the Corporation for Public Broadcasting (CPB) and the National Telecommunications and Information Agency (Public Telecommunications Facilities Program) have severely curtailed the production of low-cost programs that can be offered to public stations. The system needs more production money from multiple sources: e.g., CPB, NEH, NEA, and the Department of Education.

National Endowment for Children's Educational Television. We support the Children's Television Act of 1990. This bill would authorize grants only to holders of public television licenses to "Produce educational children's programming to improve children's (16 years and younger) fundamental intellectual skills."

Institute of Museum Services (IMS). The IMS established the precedent for Federal support of general museum operations based on competitive grant applications. IMS funding, with its ceiling of $75,000 per institution, may represent only a small portion of the operating funds of any institution. However, it often provides a critical margin of difference in attracting greater private support and carrying out needed conservation and collections management programs.

The IMS can assist fewer than one-fourth of the nation's museums each year at its current funding level. Significantly enhanced support is needed, particularly for general operating aid and for conservation and preservation programs that will assure the survival of our cultural heritage.

United States Department of Education. *Library Services and Construction Act (LSCA).* LSCA has been the principal base of Federal libraries support for nearly 35 years. Its provisions over the years have helped meet libraries' needs to keep pace with the explosive growth in information technology; extend service to rural areas and Indian reservations; strengthen urban resource libraries; create job and education information centers; start and maintain statewide resource sharing networks; and, implement and expand literacy services and services to people who are disabled, limited English pro-

ficient, disadvantaged, institutionalized, or elderly.

LSCA also supports State information and technology programs, including grants to public libraries for technology equipment, technical assistance, interlibrary cooperation in using technology, and dissemination of adequate public information about services. As international economic competition increases, libraries are expected to provide materials and information needed to understand other cultures, languages, and business practices.

The 1990 LSCA reauthorization provides a basis for these important programs that can extend literacy, increase productivity, and sustain a more democratic society. But major problems still exist in meeting the costs and logistics of new technologies and networking and needs for facility construction and renovation and further materials preservation activities. As the White House Conference on Library and Information Services examines Federal policy on libraries, the Regents support Federal legislation that addresses these issues.

Elementary and Secondary School Library Resources. A school's library media program supports a successful academic program by providing resources covering a range of interests and reading levels. For many students, especially the disadvantaged, the media center provides the only access to certain learning materials.

But, the old categorical aid programs for media were included in the Education Consolidation and Improvement Act Chapter 2 block grant, which was funded well below the total of all the programs folded into it. Given the limited discretionary education funds and the many areas of need, the amount of Chapter 2 money devoted to media has been minimal in many localities. Some schools, particularly in disadvantaged communities, have been hard pressed to use any such funding for library resources.

With the loss of funding, increased need for materials to support educational improvements, reduced school library budgets, and escalating cost of library resources, they have been unable to cover the loss with local funds. Most public schools have joined regional school library systems so they can share resources and better meet the needs of students and teachers. But, before they can share resources, schools must maintain and build their own collections to have something to share. At the very least, then, Federal, state, and local sources must provide adequate funds for full collection development and improvement.

Vocational Education Act. To further assist the use of video and television technology in education, the Congress should provide increased National Program funding under the Vocational Education Act to develop and produce video-based vocational and technical education learning materials that could be used nationwide. We also support the provision of matching vocational education funding to states for acquisition of video-based learning resources for use in local vocational and technical schools and colleges.

Higher Education Act (HEA). HEA Title II provides important funding for libraries, particularly to help develop academic collections. strengthen research libraries, automate facilities, and provide training. This topic is discussed more fully in the section on reauthorization of the Higher Education Act.

Federal Policy on Information and Cultural Services

National Archives and Records Administration (NARA): In 1985, the National Archives was statutorily reestablished as an independent agency. But it remains in a very weakened condition that prevents it from identifying, preserving, and making available the irreplaceable archival records of the national government. Between 1980 and 1990, for example, NARA lost the equivalent of 500 positions; despite substantial productivity gains, at least 300 of these must be restored. The cost will be more than $9 million.

A major 1989 external study, *Making the National Archives A Premier Research Institution*, defined how much needs to be done in the basic research services area because of a long period of insufficient resources. In addition, many records of permanent value cannot be administered effectively or housed adequately in the overburdened main building on Pennsylvania Avenue. While an "Archives II" building is rising on the University of Maryland Campus, resources have not yet been provided for shelving, equipment, and other essential basic furnishings. In both the old and new buildings, internal automation for description and retrieval, as well as the use of modern technologies for preservation, storage, and reproduction cannot be implemented adequately because of the lack of sufficient resources.

The largest challenge of all for NARA is the issue of electronic records: how to insure that those Federal records of archival value, increasingly created and administered in automated, electronic information systems, are retained to ensure future accessibility. Electronic records often are highly complicated, fragile, and transitory; even the definition of a "record" in this new environment is unsettled.

These conditions pose very difficult technical, resource, methodological, and policy questions. Their solution requires resources and aggressive and strategic NARA leadership, strong government-wide information policies sensitive to archival issues, and highest government support. The electronic records issue also has the

highest overall priority for government archives programs throughout the nation, and it is reasonable that they look to the national flagship institution for guidance. In fact, many of the largest and most complex information systems are intergovernmental and can be addressed effectively only through cooperation among levels of government.

In its present condition, NARA cannot serve as the model needed by state and local government. While it has been more helpful to state archives during the past several years, NARA must still give highest priority to its direct responsibilities for Federal records. It cannot yet provide sufficient leadership to fully address problems in intergovernmental records administration or to deal with technological and methodological issues vital to all levels of government. If fuller and formal partnerships between NARA and states are to develop in the near future, the impetus may well need to come from state and local governments and the organizations that represent them.

Paperwork Reduction Act/Federal Information Resources Management Act. Government archivists strongly believe that the main Paperwork Reduction/Information Resources Management bills considered in the 101st Congress do not address several vital issues relating to Federal records and the impact of Federal information practices on state and local governments, including their archival records. This topic is discussed more fully in the first section of this document.

Postal Revenue Subsidy for Nonprofit Mailers. Third- and fourth-class library rate are used by libraries, schools, colleges and universities, museums, and other educational and nonprofit organizations to mail educational materials. For example, libraries use the rate to share their resources through interlibrary loans and to send materials to the incapacitated, the elderly, the rurally isolated, and people without access to transportation. The Regents oppose any attempt to restrict such preferred postal rates.

Tax Incentives. The Regents are concerned about provisions of the Federal tax code that have an impact on information and cultural services, including charitable contributions, donations of creative works, and the Unrelated Business Income Tax. Recommendations on these issues are provided in Section VI.

Recommendations

1. Through legislation and policy, Congress should direct Federal agencies to use the nationwide network of libraries and the Federal government document depository system to disseminate information on critical national problems, such as drug abuse, literacy, environmental concerns, youth at risk, and an aging population. A percentage of the funds appropriated to agencies for addressing these issues should be allocated to public libraries, so they can effectively support related public education and information programs.

2. There should be a concerted Federal effort to support information and cultural activities and to avoid censorship and any limitation on freedom of expression in ensuring access to the widest possible spectrum of resources.

3. The Federal Council on the Arts and Humanities should lead the nation in calling attention to the traffic in stolen antiques and art objects. It should recommend steps to codify and strengthen international conventions on the theft, export, or import of such objects.

4. The appropriation level of the National Archives and Records Administration (NARA) should be increased by at least $9 million annually to restore 300 of the 500 positions lost during the past decade and to permit a stronger program to identify, preserve, and make available archival records in electronic formats. Funds should be provided for essential furnishings and equipment for the new "Archives II" building, for automation of NARA-wide archival work, and for research and development to improve archival methods.

5. NARA should be mandated and funded to carry out a study in cooperation with the National Association of Government Archives and Records Administrators to identify common Federal-state needs. The study also should recommend how to carry out a continuing, formal coordination program between NARA and State government archives and records program on matters of mutual interest.

6. The authorized amount of $10 million should be appropriated for the grants programs of the National Historical Publications and Records Commission (NHPRC), with at least 70 percent of this amount assigned to records projects. Staffing of the NHPRC records program should be expanded to support increased leadership and liaison on state and local government information policy and electronic records issues. The NHPRC should sponsor an initiative and support grant projects to increase public awareness and understanding of the archival role in society.

7. Congress should support forward-funding reauthorization legislation for the Corporation for Public Broadcasting at increased levels through 1993 and raise the funding level of the Public Telecommunications Facilities Program (PTFP) in the Department of Commerce. Congress should also authorize $200 million allocation for satellite replacement.

8. A separate Federal allocation of funds is needed to ensure a flow of quality public television programming.

9. Corporation for Public Broadcasting appropriations

should include sufficient set-aside funds to produce, broadcast, and publicize a significant body of public television and radio programming aimed at early childhood development and parent education. There needs to be a national office to address this important mission just as the CPB/Annenberg project addresses the use of television to meet postsecondary learning needs.

10. Corporation for Public Broadcasting or U.S. Department of Education appropriations should include set-aside funds to help low-performing schools acquire classroom video equipment. As with other resources, low-performing schools typically lag behind their better-performing counterparts in having the video equipment needed to assure equitable access to learning.

11. There must be Federal recognition of the increasing demand and rising costs associated with the availability of museum services and concomitant increases in funding for the Institute of Museum Services.

12. Appropriations for the Library Services and Construction Act should be maintained at the levels authorized in 1990.

13. LSCA Title II support for public library construction should be continued to provide the physical plants needed for modern library services and enable public libraries to meet requirements of the Federal Disabilities Act.

14. Congress should enact legislation authorizing an Assistant Secretary of Education for Library and Information Services to administer Federal library programs and policies and to coordinate them with activities of the National Commission Libraries and Information Science, the Library of Congress and other national libraries, and the National Archives and Records Administration.

15. Even with the gains projected under the 1990 LSCA reauthorization, major problems still exist in meeting the costs and logistics of new technologies and networking and needs for facility construction and renovation and further materials preservation activities. As the White House Conference on Library and Information Services examines Federal policy on libraries, the Regents support Federal legislation that addresses these issues.

16. Federal legislation should be enacted to ensure affordable telecommunications rates that will facilitate resource and information sharing among libraries, educational institutions, and nonprofit agencies. Access charge decisions of the Federal Communications Commission and divestiture-related tariffs have a major adverse impact on library telephone and data communications costs, threatening needed automation and bibliographic resource sharing programs.

17. Legislation is needed to provide incentives for support of learning materials resources in school libraries, to help purchase materials and ensure the supply of certified school library media specialists.

18. Full Federal support is needed for the National Endowments for the Humanities and the Arts and the National Science Foundation, especially to formulate a coordinated strategy to save deteriorating research materials; counteract shortages of scientists and humanities, science, and mathematics teachers; promote the importance of an unfettered social role for the arts; and, sponsor research into fields under these agencies' purview.

19. To assist the use of video and television technology in education, we urge: full funding for elementary, secondary, and vocational education programs that support development and production of video-based education learning materials; enactment of legislation authorizing funds for descriptive video or captioning; and establishment of the Children's Educational Television Endowment.

20. Congress should extend the Treasury-Postal Service appropriations subsidy to ensure that cultural and educational institutions can continue communications and fund-raising efforts at reasonable cost.

X. EDUCATION FOR INTERNATIONAL COMMUNICATION AND AMERICAN ECONOMIC COMPETITIVENESS

The Role of Education

To succeed in the international marketplace and address global concerns, we must know the cultural context within which various economies work and be able to communicate freely with other peoples. Understanding perspectives that are rooted in tradition, religion, and historical relationships is essential. Educational institutions must educate and train citizens to understand other cultures and work comfortably with them.

The National Governors' Association's 1989 report, *America in Transition, The International Frontier*, states that "In 1989, the United States is not well prepared for international trade. We know neither the languages, the cultures, nor the geographic characteristics of our competitors. . . How are we to sell our products in a global economy when we neglect to learn the language of the customer? How are we to open overseas markets when other cultures are only dimly understood? More than ever before, our economic well-being . . . (and). . . our national security — indeed, world stability as a whole — depends upon our understanding of and communication with other countries."

There are numerous examples of how our country fails to adequately prepare even those people whose livelihood is international in nature:

- We are the only major world power that does not require second language proficiency for entry into foreign service. Key posts are filled by high-level officials who can neither speak the local language nor read the local newspaper.
- Less than one percent of our overseas military personnel are competent in their host country's language.
- In an increasingly global marketplace, 61 percent of our business schools do not offer international trade courses, and fewer than one-third of Fortune 500 executives have any foreign experience.

National reports that criticize elementary and secondary education point to the need for foreign language and cultural instruction. The Advisory Council for International Educational Exchange's *Educating for Global Competence* states that "only three percent of American high school graduates and only five percent of our college graduates reach a meaningful proficiency in a second language — despite the fact that many of them come from bilingual homes. As recently as three years ago, 33 states did not require any foreign language study in high school. [Additionally,] thirty-four states require no world history course in their high schools."

United States Department of Education data indicate that foreign language enrollments in grades 9 through 12 decreased nearly 23 percent from 1970 to 1982. The good news is that from 1982 to 1985, enrollments increased by nearly 39 percent. This recognition that foreign language acquisition is a critical and basic skill is significant and must be supported.

The Regents realize that more is needed. Innovative techniques for foreign language instruction must be developed and tested. State and local education agencies (SEAs and LEAS) and institutions of higher education (IHEs) must promote use of interactive technology, development of curriculum materials, and experiences with the cultural heritage of other societies.

New York State Activities

The New York State's Regents Action Plan for Elementary and Secondary Education recognizes the need for international education and language instruction by requiring two years of foreign language studies from kindergarten through grade 9 and the incorporation of an international perspective into all subject curricula. Global studies are required to receive a high school diploma.

The Regents and State Education Department (SED) also are addressing these issues by providing opportunities for the State's teachers and students to strengthen language skills and broaden their knowledge of other cultures both here and abroad. These projects can serve as models for the types of activities that the Federal government can help support:

Youth-to-Youth Exchange. In 1988, in cooperation with the Wellspring Foundation, Grand Union Supermarkets, the Polish Ministry of Education, and Kombinat, a major Polish copper mining and smelting company, the SED developed a youth-to-youth exchange between high school students from New York State and Poland. The Polish youth spent July 1988, here, living in college dormitories and private homes. Our students spent July of 1989 in Poland.

This was the first high school student exchange between Poland and the United States and a unique private/university/SEA effort to promote cultural understanding. It has come at a particularly exciting time, given Poland's recent political changes. A second group of Polish students spent July 1990, in New York, and New York students will visit Poland next summer.

Ibero-American Heritage Curriculum Project:

Latinos in the Making of the United States of America, Yesterday, Today, and Tomorrow. The SED, in conjunction with six other states (Arizona, California, Florida, New Jersey, New Mexico, and Texas), six countries (Brazil, Chile, Costa Rica, Mexico, Portugal, and Spain), and Puerto Rico, is developing a comprehensive interdisciplinary curriculum to integrate the study of Ibero-American culture and influence in the United States into the educational system. The resulting curriculum guides will be designed as resource guides and will heighten the awareness of Americans regarding the Ibero-American influence on culture and history in the United States.

The Project is guided by a 14-person international advisory panel, which develops the overall rationale and identifies issues. Scholars, researchers, and educators from North America, Latin America and the Iberian Peninsula are part of the curriculum development process, which highlights the rich and lasting Latino origins of the United States.

Curriculum Consultant Program. For several years, we have brought educators from other countries, including the Federal Republic of Germany, Italy, the Soviet Union, the People's Republic of China, and Spain, to work with SED staff in developing curriculum materials and strengthening foreign language and global studies in our schools. The consultants visit school districts, provide technical assistance to teachers and administrators, and make presentations on their country's language and culture.

Language Assistant Programs. We also encourage the study of foreign languages through Language Assistant Programs, beginning with a program in 1984 with the Federal Republic of Germany. People prepared to teach English work as Language Assistants in school districts and live with host families in New York State.

The benefits of this program are two-fold. The Assistants sharpen their English language skills and learn about American culture and family life. In return, they assist language teachers and students as authentic resources and share their language and culture with their host family and local community. We now have programs with Italy, Spain and the People's Republic of China.

Global Studies - Africa. Since 1988, the SED has coordinated seminars on apartheid and South Africa for State social studies educators, providing them with materials and guidance for preparing lesson plans. The Global Studies requirement of our Regents Action Plan focuses on the study of other regions of the world, and these seminars are one way that New York State teachers can prepare to meet that requirement. In 1991, we will offer seminars that focus on the history and people of Nigeria and the African Continent.

Multinational and Comparative Education Scholarships. We provide scholarship opportunities for teachers and administrators to participate in history/culture study programs in Canada, France, the Federal Republic of Germany, Italy, and Spain. To date, the scholarships have been provided by countries wishing to expand the study of their languages in this country. Programs are also being developed with the Soviet Union, China and Japan.

Other activities are under way to integrate aspects of international education into social studies, arts, music, science, economics, and language courses. However, more teachers must be trained for foreign language instruction, particularly in less frequently taught languages such as Russian, Arabic, Japanese, Chinese, and Portuguese.

Partners in Educational and Cultural Exchange (PEACE) Program. The SED has developed the PEACE program that partners New York State schools with schools throughout the world. Students learn about the linguistic and cultural diversity of other countries. PEACE programs include activities such as pen pal letters, video and cassette exchanges, individual and school projects, electronic communications, and student exchanges. To date, PEACE programs are under way with France, Italy, Spain and the Soviet Union.

Exchange of Programs, Practices, and Peoples

These New York activities illustrate that a key way for educational institutions to develop international competence is through exchange of programs, practices, and people. Millions of United States residents participate in international exchanges or are members of host families. Long- and short-term visits by foreigners are made to the United States for training, study, or seminars. Additionally, countless cultural institutions cooperate in international exchanges of scholarly information, historical and arts exhibitions, and performing arts programs.

Exchanges are sponsored by private and public organizations, institutions, and businesses, and many have existed for over 50 years. Unfortunately, the majority of them involve a limited number of countries and, at best, modestly involve the developing world. Relatively few of our secondary school youth visit the Middle East, Africa, Latin America, or Asia, where three-fourths of the world's population is located. We applaud the President's Youth Exchange Initiative, which takes the positive step of expanding exchange programs to many developing countries.

Exchange opportunities should be provided equitably for all students, especially the economically disadvantaged and those in vocational/occupational programs. It is generally the case that the cost of a student's participation in an exchange program is the parents' responsibility. Students from economically disadvantaged families are virtually eliminated from sharing in an experience that could have a major positive impact on their lives. Vocational/occupational students could participate in exchange or apprenticeship programs for automotive mechanics, hotel management, fashion design, and other fields.

Federal Role — Current Status

The Federal role in international education historically has been narrow and inadequately funded through the International Education Program under Title VI of the Higher Education Act; the Fulbright-Hays Program; and selected National Endowment for the Humanities programs. Most Federal assistance has been used for advanced study and research.

More recently, the Hawkins-Stafford Elementary and Secondary School Improvement Amendments of 1988 authorized a Foreign Language Assistance program at $20 million. A first-time appropriation of $4.9 million has been made for Federal fiscal year 1991. The Regents are encouraged by this appropriation, but believe it should be funded at its authorized level.

The Higher Education Act is scheduled for reauthorization in the 102nd Congress. We strongly support an increase in funding for Title VI, which addresses international education and foreign language studies. While the Regents welcome the increases in Title VI funding that are noted below, we are concerned that SEAs are not eligible to receive any funds. As in New York State, they can be in a position to leverage funding to implement needed programs.

Funds for associated domestic programs support graduate and undergraduate foreign language and areas studies centers, graduate fellowships for students, foreign language and international education research, and international business education programs. We are pleased that these activities have received a modest $5.3 million increase, bringing its appropriation for 1990-91 to $40 million. Unfortunately, a separate allocation is no longer available for the International Business Education Programs. We believe it should remain separate to ensure its continuation.

The long-term economic and strategic needs of the United States requires major expansion in our national capacity to communicate in critical foreign languages. This effort calls for a more concentrated effort to carry out carefully targeted research and development activities and to expand that capacity to new educational, scientific, and business communities. Therefore, within the increase provided, $1 million has been included for grants to fund up to two foreign language resource centers to identify national needs for critical language training and provide programmatic responses to those needs. The grants are to be made in consultation with the Secretary of Defense. We are pleased with this effort and wish to see it expanded.

Overseas programs in international education and foreign language studies are authorized by the Mutual Educational and Cultural Exchange Act of 1961, popularly known as the Fulbright-Hays Act. This Act provides grants for faculty and doctoral studies research abroad and foreign curriculum consultants. A modest $800,000 increase has been appropriated, bringing funding for Fulbright-Hays to $5.9 million for 1990-91.

In addition to these existing programs, the following bills were considered but were not passed in the 101st Congress. The Regents urge that they be considered in the next session:

- The Global Elementary Education Act of 1990, to aid elementary foreign language and culture instruction, through foreign language institutes, preservice training of elementary teachers, teacher exchanges, and development of foreign language and culture instructional materials.
- The Educational Exchanges Enhancement Act of 1990, to supplement Fulbright and other successful exchange programs and provide 10,000 scholarships for economically disadvantaged undergraduate students. Travel or study for American students would be limited to nations where the United States is underrepresented. Additionally, only foreign students from new eastern democracies would be eligible. This is an exciting piece of legislation because it provides opportunities for economically disadvantaged students. However, eligibility should be extended to secondary school students, who are normally shut out of such opportunities but whose participation can dramatically clarify their perspective on education and future career goals.
- Amendments to the Foreign Language Assistance Act of 1988, to improve and expand foreign language study through grants to states to develop foreign language institutes and foreign language and culture instructional materials. The amendments were part of the omnibus education bill that were not acted upon by the Senate and were very similar to the provisions of the Global Elementary Education Act of 1990 noted above. Efforts to enact legislation to increase foreign language study at the elementary level should be supported and encouraged. The ear-

lier a student develops interest in second language and culture studies, the greater the chance that their interest will continue and expand.

Finally, as part of the National and Community Service Act, the Exchange Program with Countries in Transition from Totalitarianism to Democracy was authorized. Under it, the President can authorize grants, contracts, or other means to support exchanges with countries that are in transition from totalitarianism to democracy. The program is to be coordinated by the United States Information Agency (USIA). The Regents are pleased that this program has been developed and urge the Congress to approve the transfer of funds so the program may be implemented.

Recommendations

1. The Regents recommend implementation of an Education for International Communication and American Economic Competitiveness Act. This legislation should take a comprehensive, results-oriented approach to increasing international skills in the business community and creating awareness among Americans of the international aspects of our economy. For state and local districts that have begun international education activities, this Federal program should provide an incentive to meet the national goals of developing international competence among our citizens and increasing our economic competitiveness in the world marketplace.

In this new program, states should coordinate related activities within their boundaries and serve as principal contacts with the United States Department of Education, the USIA, and other relevant agencies and private organizations. SEAs are a natural focal point for working with public school districts and IHEs to implement such activities. The New York SED's Center for Multinational and Comparative Education exemplifies how states can help develop programs with other countries to promote the study of languages and strengthen the skills of foreign language teachers.

2. The Regents believe that members of our military must be better prepared for service in foreign countries by having a functional literacy in the language and culture of the country to which they are posted. This instruction must start in basic training and be included as part of the on-duty training regimen. Opportunities should then be provided for ongoing study as part of on-duty assignments. This effort would play a significant role in not only preparing for service in foreign countries but in building pride and confidence in staff to better acclimate them to foreign surroundings and for personal development.

3. SEAs and LEAs should be encouraged to collaborate with postsecondary and cultural institutions and other groups to develop new international education resources, including materials and personnel. Resource development activities should include:

- University Resource Centers, in collaboration with SEAs, to provide in-service training for teachers and administrators. Centers should support primary and secondary school teachers in global and second language studies, related curriculum development activities, instruction in appropriate teaching methods through summer institutes, weekend seminars, and the like. Centers also could link schools, colleges, and businesses in partnerships that provide cultural and technical understanding.
- Scholarships for college students and teachers with fewer than three years of foreign language teaching experience to participate in summer and year-round language programs abroad and summer language immersion institutes. This should help meet the impending shortage of language teachers. Awards should be based on academic ability and demonstrated interest in teaching languages and focus on minority and disadvantaged students. Special attention should be given to languages that are less commonly taught and have teacher shortages, including Russian, Japanese, Chinese, Arabic, and Portuguese.
- Telecommunication linkages between nations, an efficient and cost-effective way to convene international seminars and in-service programs among professionals. Specific attention should be given to technologies that provide for interaction and the transmission of audio, video, print, and other data.
- New materials development, including creation and dissemination of multinational-oriented curricula, audiovisual programs, and software. Experimentation with interactive computer technology and satellite communication should be promoted.

4. Programs should be developed to enhance cultural understanding and promote international linkages reflecting the economic interdependence of nations, including:

- Institutional partnerships between SEAs and LEAs and foreign counterparts to cooperate in curriculum development, cultural and sports exchanges, development programs (e.g., in agriculture, community education, and ecology), and school-international business partnerships.
- Summer institutes for elementary and secondary foreign language and culture students, emphasizing less commonly taught languages. Education agencies would seek the aid of foreign visitors, returned

Peace Corps volunteers, private international development organizations, multinational corporations and others to help students develop language skills, insight into other cultures, and multidisciplinary and cross-cultural skills to analyze major international issues.

- Programs to provide resources to SEAs, LEAs, and IHEs for exchanges involving students, education personnel, and policy makers. The exchange of elementary and secondary school teachers would be fostered by a system of reciprocal accreditation. Collaboration with existing private international citizen exchange programs would be essential. Special emphasis should be given to previously underserved populations, including the rural and urban poor and vocational-technical students.
- Cross-national comparisons of educational data to help education researchers and policy makers plan data collection and assessment activities. Collaborative efforts among Federal agencies, states, and international education associations should be developed, strengthened, and used to promote exchange, collection, and interpretation of comparative data.

5. A National Fund for International Education should be created, as recommended by the National Advisory Board on International Education Programs. The Fund should receive a portion of the money generated by the overseas sale of United States government property and by interest payments on overseas technical assistance loans. To encourage contributions from American firms unable to repatriate foreign profits, tax deductions should be permitted on contributions made to the Fund by their foreign subsidiaries or for the establishment of overseas education materials development and exchange centers.

Fund resources should be available for activities under the proposed Education for International Communication and American Economic Competitiveness Act, Title VI of the Higher Education Act, and Title II-Critical Skills Improvement of the Hawkins-Stafford Amendments. However, an existing Fund should not preclude separate supplementary appropriations under the aforementioned Acts.

6. A National Endowment for International Education and Competence should be created, as recommended by the Coalition for the Advancement of Foreign Languages and International Studies. The Endowment would supplement existing programs for international education, exchange and research. It would support all levels of education and encourage new programs to fill existing gaps in critical areas that now receive little or no support. We are particularly interested in the following activities the Endowment would promote to strengthen elementary and secondary teaching:

- Pilot programs to prepare teachers and improve pedagogy in international education;
- Cooperative efforts aimed at encouraging international education across different levels of education, including university and college outreach programs for primary and secondary school teachers;
- Research and development of international education programs in elementary and secondary schools;
- Long-term linkages and other relationships with foreign institutions at all educational levels; and
- Clearinghouses to collect and disseminate national information on international education programs and resources.

7. Any legislation that seeks to expand and promote the study and teaching of foreign languages and area studies should permit participation of SEAs to ensure maximum impact of the use of appropriated funds.

APPENDIX

CHRONOLOGY OF SIGNIFICANT DATES IN THE HISTORY OF FEDERAL INVOLVEMENT IN EDUCATION

1777 Initiation of direct Federal administration of educational programs, starting with instruction of military personnel, including schooling in mathematics; adoption of a plan to establish a military academy.

1785 Land Ordinance, commencing education aid to territories, and later to states, by endowment of public lands to schools.

1787 Northwest Ordinance ("the charter of public education"), commencing endowment of public lands to public higher education institutions.

1802 Ohio Enabling Act, giving a section of each township "to the inhabitants...for the schools thereof," and five percent of the proceeds of public land sales for public improvement, including schools; establishment of the United States Military Academy, the first Federal higher education institution.

1818 1850 Expansion of the "land grant" concept, based on the 1802 Ohio act, through similar plans in Illinois, Michigan, Oregon, and California as they entered the Union.

1862 First Morrill Act, starting Federal aid to states through land grants for colleges for agricultural and industrial education and military tactics instruction.

1867 Establishment of Federal Department of Education.

1876 Establishment of the principle that schools should be free from sectarian control.

1890 Second Morrill Act, introducing a policy of Federal grants for college instruction in specified subjects; beginning of administration of Federal aid programs by the United States Office of Education.

1911 Marine School Act, starting Federal aid with state matching requirements.

1914 Smith-Lever Act, starting cooperative extension work in agriculture and home economics (first direct aid for adult education).

1916 National Defense Act, authorizing establishment of Army Reserve Officer Training Corps (ROTC) programs at colleges and universities.

1917 Smith-Hughes Act, commencing Federal aid for vocational education below college level.

1918 Smith-Sears Act, providing vocational rehabilitation aid for World War I veterans.

1920 Smith-Bankhead Act, commencing Federal-state cooperation in vocational rehabilitation for persons disabled in industry.

1937 National Cancer Institute Act, establishing the Public Health Service fellowship program and setting the precedent for legislatively authorized fellowships.

1940 Appropriation of Federal funds for summer training programs for workers essential to defense.

1941 Lanham Act, providing assistance to public schools in areas affected by Federal war activities.

1943 Establishment of Army specialized training programs at colleges and universities.

1944 Servicemen's Readjustment Act (G.I. Bill of Rights), providing assistance for veterans' education.

1950 Public Laws 815 and 874, providing Federal support for schools in certain federally affected localities.

1953 Creation of the Department of Health, Education, and Welfare.

1954 Cooperative Research Act, providing for educational research and research training under the United States Office of Education.

1956 Library Services Act.

1958 National Defense Education Act, providing assistance to state and local school systems for strengthening instruction in science, mathematics, modern foreign languages, and other critical subjects; improving state statistical services; guidance counseling, testing services, and training institutes; higher education student loans and fellowships; foreign languages institutes and advanced foreign language study and training provided by colleges and universities; experimentation and dissemination of information on more effective use of media; and vocational education for technical occupations necessary to the national defense.

1962 Manpower Development and Training Act, providing training for the unemployed and underemployed.

1963 Higher Education Facilities Act of 1963, authorizing grants and loans for classrooms, libraries, and laboratories in public community colleges, technical institutes, and undergraduate and graduate facilities in other higher education institutions.

Vocational Education Act, requiring action plans to overcome sex discrimination, sex bias, and stereotyping in vocational education.

1964 ROTC Vitalization Act, formally establishing ROTC scholarship programs and high school Junior ROTC programs.

Civil Rights Act of 1964, prohibiting discrimination against students on the basis of race, color, or national origin by any organization receiving Federal assistance.

1965 Elementary and Secondary Education Act of 1965, providing funds for local school districts to broaden and strengthen elementary and secondary school programs (principally to aid children from lower-income families).

Higher Education Act of 1965, providing grants for university community service programs, college library assistance, library training and research, strengthening developing institutions, teacher training programs, and undergraduate instructional equipment; authorizing insured student loans; establishing a National Teacher Corps; and providing graduate teacher training fellowships.

Adult Education Act, authorizing grants to states to encourage and expand adult education programs, including training of teachers of adults and demonstrations in adult education.

1968 Bilingual Education Program, providing services to meet the special educational needs of limited English speaking students.

1972 Basic Educational Opportunity Grant program, as part of the Education Amendments of 1972, assisting in making postsecondary education accessible to all qualified students.

Title IX of the Education Amendments of 1972, prohibiting sex discrimination against students or any employee of a school district receiving Federal financial assistance.

Indian Education Act, providing financial assistance to meet the special educational and culturally related academic needs of Native American students.

1973 Comprehensive Employment and Training Act of 1973, providing employment and training opportunities for unemployed and underemployed persons (expansion and consolidation of the Manpower Development and Training Act of 1962, Title I of the Economic Opportunity Act of 1964, and the Emergency Employment Act of 1971).

Rehabilitation Act of 1973, facilitating expanded opportunities for all handicapped individuals.

1975 Education of the Handicapped Act, providing for a "free appropriate education" for handicapped children.

1976 Veterans Educational Assistance, providing for expanded programs.

1977 Youth Employment and Demonstration Projects

Act of 1977, establishing a youth employment training program that includes promoting education-to-work transition, literacy training, bilingual training, attainment of certificates of high school equivalency, job sampling, and institutional and on-the-job training in basic and job skills.

1978 Middle Income Student Assistance Act, modifying provisions for student financial assistance programs to allow middle income postsecondary students to qualify for Federal assistance.

1979 Department of Education Organization Act, establishing an independent United States Department of Education.

1981 Omnibus Reconciliation Act, reducing funding levels for education programs and creating the Education Consolidation and Improvement Act which consolidated nearly 30 elementary and secondary education programs into a single block.

1982 Job Training Partnership Act, providing education for employment opportunities to unskilled youth and adults.

1984 Education for Economic Security Act, establishing programs to improve the quality of mathematics, science, and foreign language teaching and restoring some funding for Emergency School Aid Act activities.

1986 Drug-Free Schools and Communities Act of 1986, establishing programs for drug and alcohol abuse education and prevention.

Education of the Handicapped Amendments, extending services to preschool handicapped children with mandatory programs for three to five year-olds.

1988 Hawkins-Stafford Elementary and Secondary School Improvement Amendments of 1988, reauthorizing and restructuring integral programs such as the Chapter 1 program for education of disadvantaged and at-risk youth.

1988 Omnibus Trade and Competitiveness Act of 1988, providing several new education programs targeted to improving our nation's competitiveness in the world economy, including measures to enhance the transfer of education and training technology between sectors of the economy.

1988 Family Support Act of 1988, overhauling the national welfare system and creating a Job Opportunities and Basic Skills Training Program to provide employment, education, and training to recipients of Aid to Families with Dependent Children.

1990 National and Community Service Act, establishing a series of Federal activities to promote public service, including a school-based component.

1990 Carl D. Perkins Vocational and Applied Technology Education Act, targeting funds to at-risk people and providing a continuum of service to students, including a Tech-Prep Education component that melds the last two years of high school study with the first two years of community college or an apprenticeship program.

1990 Child care legislation, authorizing a national program of tax credits and grants to help people in need obtain child care services.

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